# EXHIBIT 2

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF DELAWARE

BECKMAN COULTER, INC.,
Plaintiff,
v.
CYTEK BIOSCIENCES, INC.,
Defendant.

C.A. No. 24-945-CFC

Wednesday, September 17, 2025
9:02 a.m.
Markman Hearing

844 King Street
Wilmington, Delaware

BEFORE: THE HONORABLE COLM F. CONNOLLY
United States District Court Judge

APPEARANCES:

RICHARDS, LAYTON & FINGER
BY: CHRISTINE D. HAYNES, ESQ.
BY: FREDERICK L. COTTRELL III, ESQ.

-and-



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P R O C E E D I N G S

(Proceedings commenced in the courtroom beginning at 9:02 a.m.)

**THE COURT:** Please be seated. Good morning.



All right. Ms. Hayes.

**MS. HAYNES:** Good morning, Your Honor. Christine Haynes from Richards, Layton & Finger on behalf of the plaintiff. With me from my office is Fred Cottrell. And also with us are our cocounsel from Wilmer Hale, Omar Khan, Jeffrey Dennhardt, and Asher McGuffin. And in the gallery, we have Mike Levy from our client. Thank you, Your Honor.

**MR. TIGAN:** Good morning, Your Honor. Jeremy Tigan with Morris Nichols on behalf of Cytek. I'm joined by my associate, Cameron Clark.

From the Cooley firm I have Reuben Chen, Adam Pivovar, Dustin Knight, and Betsy Flanagan at counsel table. And in the back, our expert witness, Dr. Ilkov.

**THE COURT:** Thank you.

All right. You know, counsel are so nice in this case, I hate to have to start the hearing this way, but I'm going to. So this is what you all gave for me to read. And I'd like you all to turn to the plaintiff's supplemental brief at Page 28.

Look at the first full paragraph, the first eight lines. So there are multiple quotes from the specification of the patent. There are no citations. So I stopped reading the brief at that point.

So the plaintiffs, your brief, I stopped



reading, and I won't read it after Page 28.

I can't be clearer. It's in my scheduling order. I've talked to you. I talk to lawyers all the time. You've got to pinpoint. In fact, you don't even pinpoint; you don't cite.

I am not doing that. It is not fair. It's horrible advocacy. It's a waste of client's money. I didn't read the arguments. So keep that in mind when you do your presentations.

All right. Now, I think, from what I did read in the briefing, two terms have been dispensed with. Can you confirm that? So first and second dichroic filter, I believe, is no longer an issue in dispute; is that right?

**MR. CHEN:** That's correct, Your Honor.

**MR. KHAN:** Your Honor, our understanding of the Court's ruling from last time was that first and second filter in the '443 was resolved.

With respect to first dichroic filter in the '106 Patent, Claim 1, that filter is differently situated than the first and second filters in the '443 patent. And, specifically because the claim language is different in the first dichroic filter in the '106 Patent, Claim 1, in the claim itself, comes after a curved mirror. And so we think that warrants separate

consideration.

**THE COURT:** You didn't brief it. You didn't brief it.

**MR. KHAN:** We did, Your Honor, at -- it's at Page 11 through 13 of our supplemental brief, Your Honor.

**THE COURT:** No. Sorry. They didn't brief it. Sorry. They don't contest it. I mean, like, in other words -- sorry. Confused the sides. Didn't you sit on that side?

Okay. They are not challenging anymore.

**MR. CHEN:** Your Honor, our understanding is that Your Honor already decided on the filter term, so there's no reason to be submitting additional briefing about the filter when Your Honor already decided that the written description supports the positional significance of first and second with respect to the filter term. That covers all filter terms. We were talking about the dichroic filter at the last hearing.

**THE COURT:** Well, maybe you made assumptions I didn't. But the bottom line is, you didn't brief it, so I'm going to go with plain and ordinary meaning. I'm going to go with Beckman's approach.

**MR. KHAN:** We understand, Your Honor.

**THE COURT:** Okay.

I'm just going to decline to construe the



term. All right. So I think the same thing applies for first and second optical filter.

**MR. KHAN:** It does, Your Honor.

**THE COURT:** Okay. So same thing. There was no argument offered. I'm just going to go with --

**MR. CHEN:** Your Honor, I would like to just comment. I believe last time we were talking about the dichroic filters and optical filters, and Your Honor had decided, based on the transcript that we read, that the filter term was already decided.

You wanted additional briefing with respect to the other first and second terms, and that's exactly the instruction that was followed, respectfully, Your Honor.

**THE COURT:** Well, respectfully, I construed first and second filter. And when you briefed it on Page 10 of the joint claim construction brief, what I followed when I construed the terms at the first hearing, I talked about how you wanted me to globally do first and second. I wasn't willing to do that. I was going to break it down term by term.

And if I look at Page 10, the first term is curved mirror. The second term is focusing optical element. The third term is filter, which I construed.

**MR. CHEN:** Right.



**THE COURT:** The third term is optical filter. I did not construe it.

The next term is dichroic filter. I did not construe it. The next term is semiconductor detector. The next term is image. And I expected that we were going to have supplemental briefing that will address each of those terms, as you all presented to me.

So I didn't see anything. I'm not construing first and second dichroic filter. And I am not construing first and second optical filter.

**MR. CHEN:** Understood, Your Honor.

**THE COURT:** Now, obviously *02 Micro*, we go to trial, it comes up, we have to construe it; I'll deal with it then. I'm just not doing it now.

**MR. CHEN:** Appreciate that, Your Honor. Thank you.

**THE COURT:** Okay.

All right. Why don't we start with first and second curved mirror.

**MR. KHAN:** All right. Thank you, Your Honor.

So on first and second curved mirror, it's part of a set of terms in the '106 Patent Claim 1. And those three terms are first curved mirror, first dichroic filter, which, Judge, you just said is going to be plain and ordinary meaning until -- and then the



third term -- they're all connected in the claims, Your Honor, so that's why we're going to try to -- it would be use useful to treat them together.

Before we get to the actual term, we thought, with the Court's indulgence, if we could just have a quick background on the specification which bears on, actually, this very term and how it uses the term in the specification.

So in the specification, Your Honor, there's a passage that talks about a first optical element and a second optical element, but they are not the first and second optical elements in the optical path, which is what Cytek wants.

And if we look at the passage here and the Figure 25 that we've annotated with the first optical element is something that produces the beam of light with an image. That corresponds to element 902.

Then there's a dichroic filter in the passage. It says the dichroic filter located between said first optical element and said image, and then there's a second optical element located in one of the branches. And there's an image relay optical element near the other image.

So here, Your Honor, here's the passage and specification talking about two -- a first optical

element and a second optical element and -- but there's a third optical element in the middle, and it's -- the use of the word "first" and "second" is out of order because there are -- it would have referred to the dichroic filter as the second optical element and that last focusing lens as the third optical element, and so what --

**THE COURT:** Sorry. I'm losing you. I don't get it.

**MR. KHAN:** Sure.

**THE COURT:** So you may want to start over because I'm just not --

**MR. KHAN:** Understood, Your Honor.

So in this passage, there are --

**THE COURT:** This is from the '582 Patent.

**MR. KHAN:** This is from the '582 Patent at 639, 50, Your Honor. And it's describing a first optical element and then it says that's the optical element that produces a beam of light.

And then it says there's a dichroic filter, and it identifies a dichroic filter. And then it identifies a second optical element located in one of the branches created by the filter.

And then it says there's an image relay optical element located near the image produced by the



optical element in the other branch.

And so the point, Your Honor, that we're trying to make is that the passage is talking about four different optical elements, but only two of them are labeled first and second. And they're actually labeled first and second non-sequentially because the dichroic filter is in the middle of the first and the second optical element. And that's the point, Your Honor.

So the terms "first" and "second" are used non-sequentially in this passage because the dichroic filter qualifies as an optical element, as we discussed last time around.

It's an object -- it's an element that acts on light. So it's just like all the other elements in the system. It's an optical element.

And what the passage is saying is that: I'm going to call this the first optical element, and I'm going to call this the second optical element, but I'm going to -- it's using the terms "first" and "second" merely to refer to two different elements in the system.

**THE COURT:** You know, what you're saying is every single part of that figure is an optical element.

**MR. KHAN:** Exactly, Your Honor. All of them are optical elements. But I'm focused on the use of the words "first" and "second" as well. And critically, the



use of the words "first" and "second" is not, in this passage, connoting order or sequence.

**THE COURT:** Hold on. Hold on.

**MR. KHAN:** Yes.

**THE COURT:** Go ahead.

**MR. KHAN:** And so the point is kind of what I was saying, Your Honor, that this passage is saying -- is using the words "first" and "second" not to talk about how components are ordered in the optical path because there's a dichroic filter -- sorry. There is --

**THE COURT:** Haven't I already ruled that Figure 25 shows a sequential first and second?

**MR. KHAN:** I don't think, Judge, you ruled exactly that. I think -- but I don't think anybody is disputing that Figure 25 has a certain configuration, and that the sets are ordered, that the semiconductors and all the other optical elements are lined up in the way that they are. There's actually no factual dispute about how Figure 25 works.

And all we are pointing out here, Your Honor, is that there's a usage of the first and second in a nonsequential way. And actually, the patent does it again. And now it's talking about different optical elements. And this is at -- again in the '582 Patent. And here it's saying, "I have a collimating optical



element, which is Element 902." And then it says, "I have a dichroic filter." That's, of course, an optical element here as well. And then there's a second optical element that receives light from the dichroic filter. Here -- that's over here.

And so, again, the use of the word "second" is nonsequential. It's a nonsequential optical element, because if the passage were wanting to use first and second sequentially, what would it say? It would say, "I've got a first optical element, I've got a second optical element, and I've got a third optical element." And it doesn't do that. The passage just says, "I've got a collimating optical element, a dichroic filter, and a second optical element."

**THE COURT:** Right. It doesn't treat dichroic filter as an optical element in this discussion.

**MR. KHAN:** But as of --

**THE COURT:** So, I mean, you agree, right, it expressly defines the first optical element as 902.

**MR. KHAN:** It does not say the words "first optical element." But optical element --

**THE COURT:** Can you go back to the prior passage?

**MR. KHAN:** Yes.

**THE COURT:** So expressly, like, the first

optical element is undisputed. I can't see anymore because it's so far away. Is it 902?

**MR. KHAN:** Yes, Your Honor.

**THE COURT:** Right. So that passage, which is Column 6, Lines 39 through 50, expressly identifies as the first optical element 902, correct?

**MR. KHAN:** It does, yes, Your Honor.

**THE COURT:** Right. And it defines a second optical element as what?

**MR. KHAN:** The second optical element is the lens that captures -- that's in one of the branches that captures the light, right.

**THE COURT:** Correct. What is it?

**MR. KHAN:** It's a focusing lens. It's an optical --

**THE COURT:** No, no, no. What number is it?

**MR. KHAN:** Oh. 905.

**THE COURT:** 905. Okay.

And that occurs sequentially after the first optical element?

**MR. KHAN:** After the first optical element, but not immediately second sequentially, right, because the --

**THE COURT:** But in terms of what has been defined in this passage as an optical element, or what's being characterized as an optical element, it is sequential. I'm done. It's sequential. I've already ruled. I don't want to rehash this. I have limited time.



**MR. KHAN:** Okay.

**THE COURT:** I have very limited time. I have given you guys way too much time.

And the way you briefed it, you don't deserve any time, right, because of what I said. I mean, look, and just for the record, I want to make sure the Federal Circuit appreciates that, it's literally 2 feet of documents, 2 feet of documents that you want me to review without pointing me to a cite.

It's ridiculous, so move on. I don't repeat argument. I dealt with this argument on the last hearing, on the Figure 25. Let's go.

**MR. KHAN:** All right. We apologize for that, Your Honor. We meant to incorporate the prior cites. But can we go to the curved mirror, please.

So here's the curved mirror section, Your Honor. So on curved mirror, the language in the claim is that it's a first curved mirror. And the other language in the claim is what tells you where the position of the curved mirror is. It's not first and second.



The other language in the claim tells you that the curved mirror is receiving light passed through the collimating optical element. And then the other language in the claim tells you that the curved mirror reflects light towards the first semiconductor detector.

So the word "first" is not, in this claim language, noting positional sequence, because the rest of claim tells you what it is.

It's also, Your Honor -- Judge, it's a comprising claim.

**THE COURT:** Hold on. Sorry. Give me a second.

Okay. Sorry. Go ahead.

**MR. KHAN:** All I'm saying, Judge, it's a comprising claim. And so what that means is that there can be elements that come before the first curved mirror -- a first curved mirror, including other curved mirrors that come before the first curved mirror.

And the specification, Your Honor, never uses the word "first" in connection with curved mirror or any other similar elements. And instead, it just identifies optical element 907 as a second optical element.

In the claims --

**THE COURT:** What about Claim 5? In Claim 5 depends ultimately from Claim 1, right?



**MR. KHAN:** It does, Your Honor. So --

**THE COURT:** Can you address that, please?

**MR. KHAN:** So Claim 5 is an unasserted claim, Your Honor. And --

**THE COURT:** I realize. But it has a second curved mirror, right?

**MR. KHAN:** It does have a second curved mirror.

**THE COURT:** So can you just address that? And that comes sequentially after the first curved mirror, right? It has to, right?

**MR. KHAN:** It does not. Your Honor, the -- in this instance, a second curved mirror, perhaps, sort of comes after, but it doesn't have to come sequentially after, right?

**THE COURT:** I'm sorry. I lost you. "After" seems to me sequentially. I mean, well, "after," by definition is a relative term referring to sequence.

**MR. KHAN:** Exactly. So in Claim 5 --

Can we switch to the ELMO?

**THE COURT:** It might be the source button on the podium maybe.

Okay. Great. Thank you. Need optics.

**MR. KHAN:** Trying to figure out how to...

There it is. Okay.

So in Claim 5, Your Honor, there's a second curved mirror and a second dichroic filter. And it's arranged to reflect at least a portion of light reflected by the first dichroic filter.

And so what we would agree with Your Honor is that a first curved mirror has to come before a second curved mirror. We agree with that.

**THE COURT:** Okay.

**MR. KHAN:** But it doesn't have to be the immediate next. So what Cytek is arguing is that the first and second curved mirrors have to be back to back.

**THE COURT:** Hold up.

**MR. KHAN:** First and second in sequence.

**THE COURT:** I don't think they are saying that. It just has to come after. It doesn't say that it can't be something in between it.

**MR. KHAN:** We would agree with that, Your Honor.

**THE COURT:** Maybe we don't have a dispute because all they're saying is that the second has to come after the first.

Correct, Mr. Chen?

**MR. CHEN:** It has to be the second curved mirror. There can be other components in between.

**THE COURT:** Right.



**MR. CHEN:** There has to be a first mirror and then the second mirror.

**THE COURT:** In other words, the only thing that can't be in between is a curved mirror.

**MR. CHEN:** Correct.

**MR. KHAN:** Well, that's maybe the area of dispute then, Your Honor.

**THE COURT:** Okay. Well...

**MR. KHAN:** Thank you for that.

**THE COURT:** In Claim 5, there's no curved mirror in between the first and second curved mirror.

**MR. KHAN:** Right. But all -- it says the second curved mirror is receiving, essentially, the light from the first -- from a first curved mirror.

**THE COURT:** Yeah.

**MR. KHAN:** But there can be intervening curved mirrors that may have also received the light. It's a comprising claim, Your Honor, so it doesn't preclude the notion that the light could have passed through an intermediate curved mirror. That's all -- that's essentially my point.

**THE COURT:** Okay. I see. All right. I understand now. Sorry.

**MR. KHAN:** All right.

So, Your Honor, in this claim in '106 Patent,



Claim 1 --

**THE COURT:** I do want to go back to, is there any disclosure in the written description where between the first and second curved mirror, there's another curved mirror?

**MR. KHAN:** The words "first" and "second" are not used to describe the curved mirrors at all.

**THE COURT:** Okay.

**MR. KHAN:** And so the figure just labels a plurality of curved mirrors. And so the words -- the usage of the words "first" and "second" in connection with curved mirrors is nonexistent in the specification.

**THE COURT:** Okay. Is there any indirect reference to a curved mirror in the written description using the words "first" or "second"?

**MR. KHAN:** I don't believe so, Your Honor.

**THE COURT:** In other words, there's no first optical element or first --

**MR. KHAN:** Second optical element.

**THE COURT:** So there is a second optical element that refers to a curved mirror?

**MR. KHAN:** There's a second optical element that refers to a curved mirror. Turns out that it's the first curved mirror, actually.

**THE COURT:** Right. Exactly. I just wanted to



make sure. And that would be Figure 25?

**MR. KHAN:** In Figure 25, right. So in a sense, the use of the word "second optical element" to refer to the first initial curved mirror tells you the first and second are not doing any work with respect to usage to suggest sequentiality or order or sequence as it applies to curved mirrors.

**THE COURT:** Okay.

**MR. KHAN:** And the point that I would make, Your Honor, is in this claim, there are three elements. It says that there's a first dichroic filter between a first curved mirror and a first semiconductor detector.

And, Your Honor, what we would submit --

**THE COURT:** Hold on. When you say "it says" --

**MR. KHAN:** The claim.

**THE COURT:** The claim. I just want to make sure. Claim 1. All right.

**MR. KHAN:** '106 Patent, Claim 1 says, "A first dichroic filter between a first curved mirror and a first semiconductor detector."

**THE COURT:** Okay.

**MR. KHAN:** And that's the language in the claim.

And, Your Honor, we submit that to the extent

that there's the word "first" is doing any work in this claim, it's actually grouping these limitations together and saying, hey, I've got a first group of a curved mirror, a dichroic filter, and a semiconductor detector.

And that's one of the usages of "first" and "second" that the Federal Circuit has embraced and said, hey, you know, first and second -- to find that its usage is sequential, you have to necessarily find that the specification requires that usage.

But combining the various elements into a first group, that is something that patent drafters and claim drafters do all the time.

And so the word "first" is doing work in this claim. It's not without meaning. It's sort of saying, here's my first group.

As I was pointing out earlier, Your Honor, it's a comprising claim. So when I defined the first group as curved mirror, dichroic filter, semiconductor detector, I can have elements that come before it. And that's sort of what -- that's basically what we're trying to get at.

Thank you, Your Honor.

**THE COURT:** Thank you.

**MR. CHEN:** Good morning, Your Honor. Reuben Chen for Cytek Biosciences.



**THE COURT:** Good morning.

**MR. CHEN:** May I approach with the slides?

**THE COURT:** Yes, please.

**MR. CHEN:** Your Honor, I'd like to just quickly point out that with respect to plaintiff's slides that they just showed you, that Slide 4 is talking about a specification passage that's not described in Figure 25.

So I just want the record to reflect that that discussion is not with respect to Figure 25; even though, they included Figure 25 and try to map those particular elements onto Figure 25, which we don't think is accurate.

The other --

**THE COURT:** Hold up. I do want to check something out now.

**MR. CHEN:** Sure.

**THE COURT:** Column 6 was the discussion, right?

**MR. CHEN:** That's correct, Your Honor. Column 6 is not specifically with reference to Figure 25.

**THE COURT:** The discussion in the written description of Figure 25 is in Column --

**MR. CHEN:** Forty-four, Your Honor, and 45.

**THE COURT:** Yeah, 25 and 44.



Okay. Thank you. And 45.

**MR. CHEN:** Thank you.

**THE COURT:** Thank you. All right.

**MR. CHEN:** Correct.

The second thing I wanted to point out is with respect to their Slide 54, where they are talking about --

**THE COURT:** I don't have their slides. When you say 54 --

Sorry. All right. Go ahead. I found their slides. Go ahead.

**MR. CHEN:** Thank you, Your Honor.

**THE COURT:** What are you on, Slide?

**MR. CHEN:** Fifty-four.

**THE COURT:** Fifty-four. Okay. Great. Got it.

**MR. CHEN:** With respect to Slide 54, where there is the discussion of the actual asserted claim, the asserted claim they're trying to map on to Figure 25, but, again, there's no such requirement.

And as we pointed out at the last hearing and that we'll point out with respect to some additional terms, the original claims of the parent '412 Patent do map on to Figure 25, Your Honor.

**THE COURT:** Right.



**MR. CHEN:** Okay.

**THE COURT:** And federal case law is explicit that I can treat the claim of the original application as part of the prosecution history, correct?

**MR. CHEN:** That's correct, Your Honor.

**THE COURT:** Right. I mean, it's not a question of, like, there's ambiguity. There is express Federal Circuit case law which talks about that original claim, which makes sense, right, because that's the inventor, that's their first shot, and it kind of reveals a lot.

**MR. CHEN:** Absolutely, Your Honor. Correct.

So turning to the first curved mirror term. If we can go to the next slide, please.

There is a specification passage that talks about concave mirrors. There isn't a labeling of a first or second with respect to the concave, which is a subset of curved mirrors, but they are sequential.

And you can see Figure 25A is sort of the reverse of Figure 25.

So the optical fiber is now coming in from the right instead of the left, and it's coming in from the top instead of the bottom. So you have the optical fiber 852 and then there's the collimating optical element 902. And then it travels through the same

components as you see in Figure 25, which is a dichroic filter. And then 905 is a focusing lens.

And then 940 are the semiconductor detectors here. And what you see is that 907 is the first curved mirror or concave mirror. And then it just continues sequentially, 910, 911, 912, 913.

And when you read the specification as a whole, and specifically Columns 44 to 46, you see that the specification is providing positional significant sequence with respect to these various claim terms.

For example, first image is a really good example. And perhaps we can turn to that just real quick. I'll talk about that in more detail soon.

**THE COURT:** Well, actually, here's the deal: I've heard enough.

**MR. CHEN:** Okay. Thank you.

**THE COURT:** What about, just quickly address Claim 1 and Claim 5 in the '106 Patent and why you think that that also supports your position.

**MR. CHEN:** Absolutely. And we've got a slide on that. So just pulling up the claim language here.

We do believe that it supports our position because you have a second curved mirror and a second dichroic filter. And specifically, as you read through the claim language, the second dichroic filters arranged



and configure to allow the second color band in the fluorescent light to pass through the second dichroic filter onto the second semiconductor detector.

**THE COURT:** Right. Now, what do you say to his argument that, all right, he admits, Mr. Khan admits that, all right, the second has to come after the first, but it doesn't preclude there being a mirror in between?

**MR. CHEN:** Yeah.

**THE COURT:** In the claim language.

**MR. CHEN:** Yeah. It doesn't make any sense, because if you look at all the first and seconds, and there's a third semiconductor detector here, they're all in sequence and they have to receive like the third color band of light. There's a second color band and there's a third color band of light.

It doesn't make any sense if you say, Well, a third one could be the second one, a second one can be the third one. It just doesn't make sense.

And even if you were to say, "Okay. There's a multi-detector system. And, you know, the first curved mirror is broken, I need to replace it," a person of ordinary skill in the art would know which is the right first curved mirror to replace. They wouldn't think, "Oh, I've got to replace the third one."

I mean, a person of ordinary skill in the art



would know that. And, frankly, a layperson would know that, too, Your Honor.

**THE COURT:** All right. So I agree with you. And I think that Claims 1 and 5, but more importantly, coupled with Figure 25, and the original claims of the patent, which read on Figure 25, in addition, I would add even 25A, which again, shows positional sequencing. I think when you read all those together, it's very clear that there should be sequencing here.

**MR. CHEN:** Thank you, Your Honor.

**THE COURT:** So I'm going to construe it that way.

All right. So that dispenses with the first and second curved mirror terms.

Let's go to the next term. Actually, let's go next to... I don't want to do "focusing optical element" next. I want to leave that.

Let's do "focusing lens" next.

**MR. KHAN:** Focusing lens is configured to focus light?

**THE COURT:** No.

**MR. KHAN:** Or focusing optical element?

**THE COURT:** Focusing lens, I thought, was part of the original briefing we didn't cover at the last hearing.



**MR. KNIGHT:** You're correct, Your Honor. It wasn't relative to the first and second terms.

**THE COURT:** Right.

**MR. KNIGHT:** Right.

**THE COURT:** I know that. Well, actually, you say "it wasn't relative to," I don't know. Part of the reason I want to do "focusing lens" is because I'm wondering what it's going to do when I think about "focusing optical element."

**MR. KHAN:** Understood, Your Honor.

**MR. DENNHARDT:** Good morning, Judge. Jeff Dennhardt.

All right. So the dispute here is our construction is that a focusing lens configured to focus light means a lens to converge light. "Focus" means converge. The parties, I think, agree on that point.

Cytek's construction by contrast additionally requires that the lenses must capture all collimated light rays that pass through a filter and project them as converging rays onto the focal point of the lens.

So the question is whether they need -- a focusing lens need only converge to light to focus, or whether it requires all of the additional requirements that Cytek is seeking to impute to those claims.

And if we look at the specification, this is

on our Slide 122, the specification repeatedly confirms that a focusing lens is used to converge light.

This is a very simple term, we think, Your Honor. The first one --

**THE COURT:** Just a second. Sorry.

Would you agree to construe it as "lenses that capture and converge collimated light"?

**MR. DENNHARDT:** I don't think we have an issue with "capture."

I think "collimated light" would not be right, Your Honor, because the '107 Patent claims don't mention the word "collimated" at all.

So that would be clearly improperly imputing a requirement from the specification into the claims. There's simply no requirement that the light be collimated.

I'm sorry. Can you repeat the rest of your construction? I want to make sure I'm addressing your question.

**THE COURT:** I just wondered if you would accept "lenses that capture and converge collimated light."

And you're saying you would accept "lenses that capture and converge light."

**MR. DENNHARDT:** That's right. I think if you



took out the word "collimated," we would be okay with that.

And I would note, Your Honor, this is our Slide 128. Cytek recognizes that the '107 claims don't require collimating. In fact, they told you so expressly.

(Reporter clarification.)

**MR. DENNHARDT:** I'm so sorry.

The '107 claims may omit claiming a collimating optical element or a collimated beam. It's simply not in the claims. There's no reason to impute that requirement into the claims.

I understand --

**THE COURT:** Hold on a second.

What's this from?

**MR. DENNHARDT:** This is from the joint brief. This is their answering position. It's the joint brief at Page 114.

**THE COURT:** Okay. Thank you.

**MR. DENNHARDT:** Now, I understand, Your Honor, that they say the specification only supports collimated light.

That's a written description question, Your Honor. That can be a dispute that the parties address later in the case. But for purposes of claim



construction, it would be improper to impute this requirement into the claims.

I'll also just submit, so you have it, Your Honor, that Columns 56 through 58 repeatedly describe a WDM that does not include collimated light.

There's one use of the word "collimated" in that entire set of columns, and it's specifically identifies it as a hypothetical.

So we would submit that the written description argument is wrong. But in any case, that's not a question for claim construction.

I'm happy to address the rest of the specification, but I think you get it.

**THE COURT:** All right. Let's hear what the other side says.

**MR. DENNHARDT:** Thank you, Your Honor.

**THE COURT:** Thank you.

**MR. KNIGHT:** Good morning, Your Honor. Dustin Knight.

I'm focusing on -- focusing lens, Cytek's original briefing, we do acknowledge the fact that the '107, Claim 1, does not include a collimated optical element configured to project a collimated beam.

But as we state in our briefing, this is a significant written description issue.



And our proposed construction is an attempt, albeit a meager one, to try to reconcile issues with the written description what's in the claims.

**THE COURT:** So then, could you live with "lenses that capture and converge light," right? Well, actually...

So your biggest problem is Claim 1? Or sorry, yeah, Claim 1, right, of the '107 Patent?

**MR. KNIGHT:** That's right, Your Honor.

**THE COURT:** And you admit that the descriptions in Columns 56, maybe it's 55 and 56, only use... only disclose a "collimating light rays passing through" in the context of hypothetical; you agree with that?

**MR. KNIGHT:** Can I confer with my colleagues?

**THE COURT:** Sure.

**MR. KNIGHT:** Thank you.

(Counsel confer.)

**MR. KNIGHT:** Your Honor, if I look at Column 56 through 58, it's discussing a WDM. They use the same item numbers as Figure 25. They've just -- but now they're talking about an imaging optical arrangement.

What we briefed, and what we talked about, and what we're aware of is the disclosures related to Figure 25 for Columns 44 and 45.

And I don't think I can tell you here today, having not looked at this more closely, having not been brought up, that we would say there's written description support for a WDM that does not propagate --

**THE COURT:** I'm not asking, actually, whether there's written description support for it.

**MR. KNIGHT:** I'm sorry.

**THE COURT:** That's not what I meant.

In fact, what I'm getting at is, I'm just wondering whether it's just better to give them what they asked for, and then we just have written description briefing.

**MR. KNIGHT:** One moment, Your Honor. Thank you.

(Counsel confer.)

**MR. KNIGHT:** Your Honor, as long as it's set for the record that we're preserving a written description argument for later in the case, then we can live with that.

**THE COURT:** Okay. Then that's what I'm going to do. All right. Thank you very much.

**MR. DENNHARDT:** Thank you.

**THE COURT:** All right. So then, let's go to focusing optical element. So wait, maybe you all have that then. So I construed "focusing lenses" as...



Well, actually, I don't know whether we want to me say there's no construction necessary or that it's lenses that converge light. Does it matter?

**MR. KHAN:** We don't think it matters, Your Honor.

**THE COURT:** What do you all? I am content.

**MR. KNIGHT:** If we could have a formal construction, that would be helpful to us.

**THE COURT:** All right. Well, then, I will just construe it as, I'm giving it its plain and ordinary meaning that constitutes lenses that converge light.

The reason why I asked is I was persuaded that it probably encapsulates capturing. The plaintiff doesn't dispute it. I don't know if that makes a difference to you all.

**MR. KNIGHT:** It does, Your Honor.

**THE COURT:** Okay. You don't object, so I'm going to construe it as the plain and ordinary meaning, as lenses that capture and converge light. Okay? That's how I've construed it. Thank you.

All right. Next. Let's do focusing optical elements.

**MR. KHAN:** On focusing optical element, Your Honor, there's a couple of sort of legal principles we just want to lay out very quickly.



**THE COURT:** Okay.

**MR. KHAN:** So it's a longstanding claim construction principle, Your Honor, that where there's a reasonable interpretation to cover an embodiment, that it's incorrect to construe claims to exclude that embodiment.

This passage and this principle is not necessarily about preferred embodiments or exemplary embodiments. It's just saying if there's a reasonable way to interpret the claim to include a specific embodiment, then it's incorrect to exclude it.

And, specifically, it's a separate claim construction principle, Your Honor, that a construction that excludes all disclosed embodiments is especially disfavored.

I just wanted to talk about those because that's going to come up in the context of second focusing optical element.

**THE COURT:** These quotes are from what, means-plus-function cases? What's the context that these statements that you've got on the screen are addressing?

**MR. KHAN:** These are statements of -- these are the statements of claim construction law, Your Honor, in these cases. They are well-established principles that are not sort of, you know, really in dispute.



There's no -- there's nothing to read into in terms of understanding the application of the case because we're just quoting exactly what the background section, the legal section of these cases say.

**THE COURT:** Okay. So the first sentence, "The specification discloses embodiments that appear to be excluded under defendant's narrower construction an outcome our precedence disfavor."

I don't understand that. I mean, that sentence is taken so out of context. You agree that each claim is a separate invention, correct?

**MR. KHAN:** Claims are required to be patentably distinct.

**THE COURT:** Correct.

(Reporter clarification.)

**MR. KHAN:** Patentably distinct.

**THE COURT:** Okay. So if we're talking about a construction of Claim 1, the fact that the construction a party asks for about Claim 1 reads out disclosed embodiments is of no consequence if Claim 2 doesn't, right?

**MR. KHAN:** It may be, Your Honor. There's no requirement that -- there's not -- I'm being very clear. There's no requirement that every claim cover all the embodiments.

**THE COURT:** Couldn't be. Wouldn't make sense.

**MR. KHAN:** Yeah. So we agree on that, Your Honor.

**THE COURT:** Okay.

**MR. KHAN:** But we're just saying that excluding all the embodiments is especially disfavored.

**THE COURT:** If all the claims excluded all the embodiments, I hear you.

**MR. KHAN:** But if any single claim excludes -- construction excludes all the embodiments that are disclosed, that's contrary to what --

**THE COURT:** That can't be right. That cannot be right as a matter of law. It cannot be.

**MR. KHAN:** Well, your Honor --

**THE COURT:** In fact, think about it, because you're a patentee. You want all the time to be able to have a claim read on something that is not disclosed in the written description, an embodiment that's not disclosed. You want that all the time if you're a patentee.

**MR. KHAN:** And if there's a reasonable construction that would read on to an embodiment, that's all we're saying, Your Honor.

It is not a rule. It's not saying it's



required. That's not --

**THE COURT:** Well, actually, I'm just telling you that sentence doesn't make sense to me. I actually think it flies in the face of patent law and I think, as a patentee, you wouldn't want it. So I'm not sure how it helps you. Just go ahead.

**MR. KHAN:** And the second principle, Your Honor, laid out that that -- I think we had a discussion last time, Your Honor, about claim differentiations and, you know, claim language being rendered superfluous sort of maybe in this context, Judge, you found that less persuasive than in other contexts.

And I wanted to point out that one of the things we're going to talk about in connection with this set of claims and this limitation is we're not just rendering claim terms -- dependent claims superfluous. We are rendering them -- striking them from the claim -- we are rendering them inconsistent.

In other words, the independent claim becomes inconsistent with dependent claims once we start adopting Cytek's construction.

And the Federal Circuit recognizes that those are two different things. That's not just rendering claims superfluous, that you've rendered the independent and dependent claims completely inconsistent, and that's



the only point.

So can we go to focusing optical element? So if we start on focusing optical element, Your Honor. The Slide 17, okay.

So here's Claim 1, Your Honor. And in Claim 1, there's a first focusing optical element. The positional language comes not from the word "first," it comes from other elements of the claim.

So the claim tells you that it's going to receive light reflected by the optical relay and then it's going to focus it down to a semiconductor detector.

And so the claim tells you what the relevant optical path is. It's the light, it's the path from the relay to the focusing element down and to the first semiconductor. And, Your Honor, it's a comprising claim.

**THE COURT:** Can I just ask, before we get started and go down this road, because I may not have been as clear as I should have been at the last hearing. I was very clear at the last hearing that I was construing optical element to be means-plus-function term.

You all agree on that, right?

**MR. KHAN:** Yeah.

**THE COURT:** Okay. I just want to make sure.



Do you agree that because I've construed "optical element" as means-plus-function, then necessarily "focusing optical element" is means-plus-function?

**MR. KHAN:** We understood your ruling to have been that.

**THE COURT:** I didn't ask what you understood because I think in fairness to you, other than not put pinpoint citations, you did the briefing that a reasonable advocate would have done based on my ruling.

That's not my question. I just want to start from scratch.

I construed "optical element" to be means-plus-function. Now we're talking about "focusing optical element." I haven't formally ruled that "focusing optical element" is means-plus-function.

I just want to make sure. I'm gathering, in your view, having construed "optical element" as means-plus-function, as a matter of logic, I would construe "focusing optical element" as means-plus-function; is that right?

**MR. KHAN:** No, Your Honor. We think "focusing optical element," the word "focusing" now starts to create structure that tells you what exactly we're talking about.

**THE COURT:** All right. What I would encourage

you to do, I know Mr. Chen is shaking his head, but address that because that's why I wish I had been clearer in my hearing, in my statement last hearing, which is I am not precluding you from asserting today, I'm not saying I'm going to agree with you, but I'm not precluding you from asserting that "focusing optical element" is not means-plus-function. All right?

And so particularly what I would like you to focus on, jeepers what a pun, is what things other than a lens and possibly a curved mirror focus?

**MR. KHAN:** Right. And, your Honor, that's the key, is that once you've added the word "focusing," you very much narrow the class of structures.

**THE COURT:** What is the class of structures that, by adding the word "focusing," I've narrowed the universe to?

**MR. KHAN:** I think it's lens, mirror, and diffraction grading. I think it's those things, essentially. And so that is why in the original briefing, Your Honor, in the joint brief, we had taken the position that once -- even if an optical element does not, in and of itself, connote structure, that focusing optical element would, because it reduces the -- radically reduces the class of structures to now qualify.

We also provided evidence, Your Honor, that



But a lens, you would say, converges light?

**MR. KHAN:** A lens would converge light. And that's the quintessential example of a focusing optical element.

**THE COURT:** Right. Well, that's why I'm wondering why not we just construe "focusing optical element" to be a lens.

Mr. Chen.

**MR. CHEN:** Lens can also diverge light, Your Honor. It can be a different kind of lens of this shape and light can diverge through it.

**THE COURT:** Right. But if we had a focusing lens, in other words, if it's a focusing optical element... could you live with "focusing optical element is a focusing lens"?

**MR. CHEN:** No. Because we do think it's subject to means-plus-function, Your Honor.

**THE COURT:** All right. All right. I'll come back to that.

**MR. KHAN:** We could live with that, Your Honor.

**THE COURT:** You could live with "focusing lens"?

**MR. KHAN:** I think we could live with "focusing optical lens" as opposed to "focusing lens."

that -- those three words in tandem connected, focusing optical element, are used in dictionaries, treatises, publications, et cetera, to refer to the specific structures we were talking about.

**THE COURT:** Just give me a second.

Does a mirror always converge light?

**MR. KHAN:** I don't believe so, Your Honor.

**THE COURT:** Yeah. I wouldn't think so. How about a grading?

**MR. KHAN:** I don't -- I think each of those elements can converge or diverge.

**THE COURT:** I didn't say "can." I purposely didn't say "can," right?

**MR. KHAN:** Yeah.

**THE COURT:** And I'm a layman. But doesn't make sense to me that a mirror always would converge light. And you agree it doesn't.

**MR. KHAN:** Right.

**THE COURT:** I don't know what a grading is, really. I don't know that I've ever seen one, so...

But you're telling me a grading always converges light that reflects off it?

**MR. KHAN:** I don't believe it does, Your Honor.

**THE COURT:** Yeah. I don't think so either.



**THE COURT:** All right. Let me hear from them.

**MR. CHEN:** So, Your Honor, "focusing" is a functional term, so it doesn't add any additional structure to the term "optical element."

**THE COURT:** But what to a POSA, what structure is out there that could focus something?

**MR. CHEN:** There's a variety of structures. You could have a concave mirror that focuses. You could have a lens that focuses. Those are just two examples. There's a variety of structures that can perform the function of focusing. That's why it's not appropriate.

**THE COURT:** I mean, you could have... all right. So we could have a concave... we could have, in other words, you agree that a mirror, a grading, and a lens can all focus. You're not going to dispute that.

**MR. CHEN:** I don't dispute that, that's correct. And there's other structures as well.

**THE COURT:** What other structures?

**MR. CHEN:** Dr. Ilkov could probably answer those questions better than me, actually.

But there are, you know, a variety of structures that can do that. I mean, one that's disclosed in the patent is this back plane, concave mirror that's connected to the objective 60, which makes it a composite microscope objective. And that actually

focuses, converges light. So there's a variety of even types of mirrors.

**THE COURT:** So actually, let's go over that. Let's just talk about, what do you agree that the patent... because this is relevant to your means-plus-function.

**MR. CHEN:** Yes.

**THE COURT:** If I accepted it as means-plus-function, right --

**MR. CHEN:** Yes.

**THE COURT:** -- you wanted to... what would you admit is disclosed in the patent as an optical element that focuses?

**MR. CHEN:** Right.

We say, Your Honor, focusing lens that is of a size that captures all light rays of at least a portion of a collimated beam.

And that's because that performs the two recited functions for the focusing optical element. So there's specific recited functions, one being to receive at least a portion of a collimated beam reflected by the optical relay element; and, Number 2, to focus the portion of the collimated beam received from the optical relay element onto a semiconductor detector. That's for the '582, Claim 1.



Your Honor, for other claims, we take the position, for example, in Claim 17 in the '582, that it's indefinite.

So that's in our briefing, Your Honor. I'm happy to repeat what's in the briefing, but our position as to what the appropriate structure is, is captured in Pages 22 through 28 of our briefing.

**THE COURT:** Okay. All right. Thank you. Just give me a second, all right?

**MR. CHEN:** Absolutely. And I'm also happy to address the sequential positional significance of the first focusing and second focusing optical element.

**THE COURT:** This is part of the disadvantage. I didn't read their supplemental briefing on this issue. I don't want to prejudice you by that, so...

**MR. CHEN:** Understood, Your Honor.

**THE COURT:** But it makes it much more difficult for me.

**MR. CHEN:** Understood.

**THE COURT:** I mean, in fact, if you would rather, I will give you this option. Since they didn't, because of their failure, you want me to just leave this for trial?

**MR. CHEN:** Yeah. Yes, Your Honor.

**THE COURT:** That's what I'm going to do --



**MR. CHEN:** Okay. Thank you.

**THE COURT:** -- leave it for trial. I'm not going to construe it.

**MR. CHEN:** And that's with respect to means-plus-function. But on first and second --

**THE COURT:** I'm not going to touch the term --

**MR. CHEN:** Okay.

**THE COURT:** -- because I'm not going to revisit it. I'm not going to touch the term.

I dedicated all that time, spent hours, spent hours on this. Got to read their brief, got to the point where, like, you've got to be kidding me. I'm going to now go through literally thousands of pages and find this? I'm not going to do it. But I don't want to prejudice the other party.

So if you'd rather, I'll just leave it and we'll proceed. So that's actually what I'm going to do.

**MR. CHEN:** Thank you, Your Honor.

**THE COURT:** In fact, what I'm going to do, let's just cut to the chase. I'm not going to construe "optical element configured to detect," unless you want me to.

**MR. CHEN:** That one, Your Honor, I believe we should.

**THE COURT:** All right. Well, I'll try. We'll



see.

"Collimating optical element," I'm not going to construe it unless you want me to.

**MR. CHEN:** We do want that one, Your Honor.

**THE COURT:** Okay. "Collecting optical element"?

**MR. CHEN:** Yes. Yes, we do want that one.

**THE COURT:** Well, and then "focusing optical element" is the only one left. So I'm not going to construe it right now. We'll move on.

**MR. CHEN:** Understood. Okay.

**THE COURT:** I may not be able to do a great job since I don't have fulsome briefing, but we'll do what we can.

All right. So, really, it's a case management issue because of the failure of the plaintiffs to cite to the record in their briefing on Page 28, I made the administrative decision not to read further in their briefing. And included in the briefing, then, that I did not consider was the "focusing optical element."

And we can't do these patent cases, as an administrative matter, if people aren't going to do the basic courtesy of putting citations, not even pinpoint citations.

So I'm not going to construe "focusing optical element" since the defendant is okay with that.

All right. Hold on one second.

All right. Let's do "image" next.

**MR. DENNHARDT:** Thank you, Your Honor.

So the dispute here, Your Honor, is whether an image must be pictorial, as Cytek contends. And the second question is whether rays generated from corresponding points on an object must converge to a corresponding point.

**THE COURT:** All right. Let's start with "pictorial." What do you understand "pictorial" to mean?

**MR. DENNHARDT:** It's a great question, Your Honor. I don't know. We said that repeatedly in our briefing. We said, "What is pictorial"? I think their response was, "Well, it doesn't require a camera," but they never went on to tell us what it does require.

**THE COURT:** It seemed to me you said you didn't know, but you seem to imply to have a pictorial image, you had to have a camera. I thought that's your position.

**MR. DENNHARDT:** That's what we thought. They said no, in their answering brief.

**THE COURT:** Well, actually, I don't know why you necessarily would. But I will say, and it seems to



me you kind of clue in on the fact that there's also a description, or "image" is, in the written description, modified by pictorial at least once, right?

**MR. DENNHARDT:** I don't believe so, Your Honor.

**THE COURT:** Okay. But it is digital.

**MR. DENNHARDT:** There is a reference to a digital image. I agree with that.

**THE COURT:** I thought you, okay. What's a digital image?

**MR. DENNHARDT:** I would say created by electronics. So...

**THE COURT:** Can a digital image be pictorial?

**MR. DENNHARDT:** I don't know what "pictorial" means.

I mean, like I said, our view is that "pictorial" seems to imply a picture, so a camera. A camera, I think, could be digital, but not all cameras are digital. So I think it could be.

But I think this goes to the heart of the problem, Your Honor, which is how is the jury to know whether something is or is not pictorial?

I think their construction just introduces additional questions and actually makes it harder for the jury to assess the question of infringement.



**THE COURT:** Hold on a second, please.

Sorry about this.

What is a representation?

**MR. DENNHARDT:** I think it's broad. I think when we're talking about these systems and these particular claims, what we are referring to is light is going to pass through an object, and that light will represent that object.

So in the context of these flow cytometers, for example, will have a dye on a cell, is one potential example. The light can pass through the cell. It's going to interact with the dye, and certain light is going to come out. That light is representing the cell, right? That would be the object.

And that light is then used -- it's quantitated. It's -- you assess the magnitude of light that might come out. And that can give you different kinds of information about that cell or about a group of cells, for example.

So the light in that context could be a representation of the object. You might also have --

**THE COURT:** Let me ask you this. I want to kind of try to "Joe Six-Pack" terms for me.

So I go for a heart test, okay? It's like an EKG, so, you know, it has a graph of whatever my heart



is doing, right? Is that an image of what my heart is doing? Is it an image of my heart? Let me put it that way. Let's start with that.

**MR. DENNHARDT:** I would think not in the optical sense. And, you know, we are using "image" as it is used in optics, not as it might be used in other areas of focus.

So in optics --

**THE COURT:** In optics, do they use the word "representation"?

**MR. DENNHARDT:** Repeatedly. And let me just start by noting both sides agree that representation of an object is correct.

**THE COURT:** Right.

**MR. DENNHARDT:** We see dictionaries all over the place.

**THE COURT:** No, no. I get you see that they define "image," but do you have a dictionary definition for "representation"?

**MR. DENNHARDT:** I don't think -- sorry. I didn't mean to cut you off.

**THE COURT:** But do you know, is there a definition in an optics dictionary that defines the word "representation"?

**MR. DENNHARDT:** I don't think we've identified

one for Your Honor. And, just candidly, I'm not sure whether it is or not. I don't think I've seen one.

**THE COURT:** Does anybody have that dictionary right now handy, the Oxford Dictionary of Physics, can they look up, is the word "representation" in it?

**MR. DENNHARDT:** We can try and take a look, Your Honor. I think we may have to pull down the full dictionary. I think we just have the excerpted printouts that were exhibits.

**THE COURT:** All right.

**MR. DENNHARDT:** And so I think in the context here, what we're talking about is light, right? We're talking about optics. So it's how the light represents the object. I don't think they disagree with that.

So the only question is: Do we need the other stuff, the other words that they put around it?

And I think as we see from the dictionaries here, the commonly understood definition of "image," as a person of ordinary skill in the art would understand it, is as a representation of an object.

And because both parties agree on that, I think when we get to the question of infringement or validity, whether something is or is not a representation of an object, I don't think that's really going to be the dispute.



I think the dispute, to the extent that you're focusing on the parties' constructions, is whether that image has to be, as they say, pictorial, rays of light converge from different points to a corresponding point by an optical component, et cetera.

**THE COURT:** Hold on.

Where is the word "converge" in their definition?

**MR. DENNHARDT:** Focus. I'm sorry. Maybe I said "converge." Focused. I think we agree that "focused" and "converge" are sort of equivalents.

**THE COURT:** All right.

**MR. DENNHARDT:** And I think what we'll see, Your Honor, is that the specification talks about many different types of images. You noted digital image. We also see references to finite focalized image, finite focused image, collimated afocal image.

So the specification identifies specific types of images that might occur in the systems. But the claims don't do that, right? They just say "image."

So an image, as used in the claims, must be broad enough to encompass at least the different types of images that are recited in the specification and their construction doesn't do that.

So they require, for example, the light to be



focused. But the specification expressly discloses a collimated afocal image. An afocal image, of course, is the opposite of a focused image.

So their construction excludes disclosures that are recited expressly in the specification. They want to limit it to just, for example, the finite focused image, and that's improper. The claim doesn't do that. The claim just says "image."

I'll note, Your Honor, that in the joint claim construction chart, they have no intrinsic evidence at all. Completely blank. So they're not pointing to anything in the specification because, of course, the specification, as we've just seen, doesn't support them.

I'll also just go to the rest of their construction. Rays of light from points on an object are focused to a corresponding point. So there's a multiple-to-one relationship that they're trying to draw here. Rays of light from points focus to a corresponding point.

So they would say there's no image, no image, no image. It's only when you get to that single point that an image is created, right? That's also not true.

We know that, in fact, you're not going to have all of the points on an object are focused to a



corresponding point. So this is just simply wrong, as a matter of physics.

I'll also note that they want to try and say all of the points on an object are focused to a corresponding point, but their own expert agrees that in the real world, you're never going to have that because light doesn't behave in a perfect, idealized manner.

You have things like in a real-world imaging optical system -- this is their expert saying this -- there's light scattering, there's aberrations, and there's diffraction.

Light is going to travel in different ways. It's not all going to go or be focused to a corresponding point. So their construction is also wrong as a matter of how the real world works, as confirmed by their own expert.

And, in fact, it's also contrary to exhibits that their expert relies on. So, for example, this is the optics textbook that their expert relies upon, and it talks about light can go and reach a point P. That's referred to as a perfect image, right?

But then it goes on to say they could conceivably arrive to form a finite patch of light or a blur spot about P. So not at P, but about P. It would still be an image.

So it doesn't have to have this perfect focus that they're trying to do, for a number of different reasons. Their expert agrees, the references that their expert relies on agrees, and the specification agrees, but their construction can't be true.

**THE COURT:** How is this going to play out? Because, see, I have a really hard time understanding this. Right? Because you say, "Defendant ignores the evidence, including the specification's disclosure of non-pictorial images and extrinsic evidence defining image."

All right. Then, when you refer to those, you're talking about, one, that there's a digital image, right? But, to me, a digital image is a pictorial image. I mean, in other words, a picture is a picture. Right? I can see it.

**MR. DENNHARDT:** Sure.

**THE COURT:** And they're relying on extrinsic evidence. I mean, they cite in their brief the figures and some things, but they are really, at the end of the day, relying on their expert.

But what I'm worried about is what's the jury going to think. And I think maybe if you help me understand, how do you think this is going to be put in front of the jury, and what would be the dispute.



**MR. DENNHARDT:** Yeah. So there are two things going on here, I think. The first is pictorial. As we said, I don't quite understand what they're trying to get at.

**THE COURT:** Well, I think they probably want to limit it to those figures with the dots on the plane.

**MR. DENNHARDT:** That may be. It's not clear to me what --

**THE COURT:** I think it's Plane 605. I don't know.

**MR. DENNHARDT:** I understand what you're referring to, Your Honor.

It's not clear why those are necessarily pictorial and what wouldn't be pictorial if those are. But in any case, to Your Honor's point, a digital image is a specific type of image that's recited in the patent, right?

So even if we assume, even if we equate digital with pictorial, well, that's -- the claim doesn't say "digital image," it just says "image." It's broader. It has to encompass nondigital images.

And the other thing that I think is going on here is this, they're saying an image forms where light rays converge, not where they're collimated.

So that's their point why they want to say it



has to be focused. They want to be able to turn around and say, well, we don't infringe, or maybe it's an indefiniteness argument. I'm not sure. But they want to say, well, the claim says a collimated beam forms an image. But an image can't be formed in a collimated beam. It has to be focused.

So I think that's really what's going on here, Your Honor. And that's wrong for at least two reasons. The first is --

**THE COURT:** Don't get into the indefiniteness now. If they want an indefiniteness argument, they're going to just say go with yours.

**MR. DENNHARDT:** And maybe it's a non-infringement argument. They'll say, well, aren't -- we have images formed in a collimated beam and that's impossible, right? But the claim tells you that that's not impossible.

I mean, we have to assume that the claim is right, right? The claim language is what controls here. And the claim language tells you a collimated beam produces a first image. So they are trying to say, well, no, an image can't be formed by a collimated beam.

But the claim language says exactly the opposite. So they want to say, well, Your Honor, the claim is impossible, right? But that's not how claim



construction works. You don't say the claim language is wrong.

And the other thing, of course, is the specification tells you that there are images in collimated beams. It talks about a collimated, afocal image. So it identifies particular types of images that can occur in a collimated beam. A collimated afocal image, that's at Column 36, Lines 25 to 32.

So they want to exclude this embodiment. They want to exclude this disclosure. They want to exclude the claims, and they want to say, well, you can never have an image in a collimated beam so we're done.

The other thing I would note, Your Honor, is you were talking about you can see a picture, a digital image, for example.

And in optics, you can see an image, that's right, but it's not necessarily going to look like the object. It may just look kind of like a blob of light, right? That's the example that I was giving where the light goes through a cell as one example and what comes out, it's not going to look like a picture of the cell, right? It's going to look like a blob of light. But that's still an image because it's a representation of that cell, and the way that it's used in these systems is it will consider the magnitude of the light that's

coming out, and that gives you information about the cell.

So that's how it works in the -- in flow cytometers.

**THE COURT:** Okay. Anything else?

**MR. DENNHARDT:** I think that does it, Your Honor.

**THE COURT:** All right. Let's hear from the other side.

**MR. KNIGHT:** Your Honor, on image, I think I heard from my colleague here that it is a term in optics, and so it is actually a term of art in optics.

And I just wanted to provide you with one of the pieces of extrinsic evidence that Beckman Coulter relied on. It's Exhibit 26. And it's talking about image formation and specifically what it is. And it says, "It's a collection of rays from each point on an object and their redirection by an optical component onto a corresponding point of an image."

And so there is a very well-known definition for what an image is and the dynamics that are at play when we are talking about optics when we are talking about light.

I know you're very interested in the pictorial representation of an object, so I will address



audio system or an acoustics system or --

**THE COURT:** I mean, would you all agree, I mean, See, and I don't know like visual because it sounds like you need a human --

**MR. DENNHARDT:** Exactly.

**THE COURT:** -- as opposed to a machine.

**MR. DENNHARDT:** You got it.

**THE COURT:** But "a representation created by light," would you live with that?

**MR. PIVOVAR:** No.

**MR. DENNHARDT:** I think we can live with that.

**THE COURT:** Sir, I don't know your name, but throughout this hearing and the last hearing, you have not only demonstrated facial expressions constantly, enough that my clerks talked about it when we left the last hearing, but you have throughout this hearing, in a very loud voice, well, actually, it's in a whisper, but it's a stage whisper. And it doesn't help your colleague at the podium when you keep staying stuff out loud. It distracts me. It's kind of rude to him. All right?

**MR. PIVOVAR:** I apologize, Your Honor.

**THE COURT:** Can you cut it?

**MR. PIVOVAR:** I will.

**THE COURT:** Thank you.

All right. Now, I'm sorry, sir. Develop

that first.

When we talk about "pictorial," what we're talking about is something that's visual. If you have an object, there are a bunch of different representations of that object. You could have something acoustical; you could have something electrical. I think you mentioned an example of an EKG as being something that might be digital or data.

Pictorial is simply the fact that we're talking about image. It's in the word itself. It's visual.

Next slide, please.

**THE COURT:** Hold up.

**MR. KNIGHT:** Yes.

**THE COURT:** Can you live with "a visual representation"?

**MR. DENNHARDT:** Your Honor, so long as we're not going to later hear from the other side, "Well, this doesn't look like the object," right, it's visual but it doesn't look like the object and, therefore, you know that's not a visual representation, I think that would be a problem.

And so it's not clear to me what work the word "visual" would be even doing here. We are talking about an optical system, we're not talking about an



your own thought and go from there. Could you live with "a representation created by light"?

**MR. KNIGHT:** As to a replacement for "pictorial" or as --

**THE COURT:** No, for "image."

Pictorial is not going to do it. I mean, I looked up pictorial in the dictionary last night. I mean, even the definition, it just references back to "picture." Picture sounds like something painted.

I mean, this is going to go to a jury, right?

**MR. KNIGHT:** Right.

**THE COURT:** Because do you paint it? As plaintiff points out, do you need to have a camera? It doesn't further the day for me.

When I hear you both talk, what comes out to me is that you are saying, well, ultimately, whatever this image is, it has to be created by a light source or it has to emanate from a light source.

**MR. KNIGHT:** That is correct, but there's a more critical component. And so if pictorial doesn't work, understand Your Honor's concerns, we'd be willing to forego that.

What we wouldn't be able to forego is the optical principle here that we see where you have an object that's a light source. You have rays that are

emanating from that light source that goes through an optical component.

Here we have a lens, right?

**THE COURT:** Right.

**MR. KNIGHT:** And then what an image is is well-known in optics and there is uniformity in terms of the extrinsic sources on both sides on this, is that an image, it is a representation. It looks like that object.

But there's two critical pieces here. One is that if you have light that's going from a particular point on the object, and we'll look at the lower point on the object here.

We've got three light rays, one that's hitting the bottom of the lens, one that's hitting the middle of the lens, and one's hitting the top. They all converge on a corresponding point on the image. Likewise, if you look at a different point on the object, same thing happens.

Two things you can see here with an image and why it is a representation of an object and also different. One, is that the image is actually flipped in orientation. You can see, like, there's a small dot in the object on the top.

**THE COURT:** Right. Like looking through a



telescope.

**MR. KNIGHT:** That's exactly right, Your Honor.

And then the second is that it's magnified. And that magnification is a function of the lens. And where that image forms is on an image point, it's basically the vertical. It's how far it is away from that optical component.

Now, we actually know a lot about images. There's a lot of real-world applications. Your eyes process images.

We have an example here. This is just a real-world example. You have -- the sun hits, say, the Statue of Liberty. Light bounces off the Statue of Liberty. That's the object. That light goes through your cornea, hits the lens by your iris, and then focuses down. And what you have that hits your retina is an image.

Now, we heard in grade school that, you know, what we actually see in the real world is actually flipped and our brain reorients it. But that's the concept we're talking about here with an image. And so what's critical here --

**THE COURT:** Actually, can I step you back?

**MR. KNIGHT:** Sorry.

**THE COURT:** No, don't be sorry. You are good,



actually, very polite. I appreciate it.

But it focuses if your lenses are 20/20, right?

**MR. KNIGHT:** Correct.

**THE COURT:** But the fact that my lenses aren't 20/20, they might be distorted. I might have a cataract. And now my image is cloudy, but it's still an image, and it's still an image of the object.

And I think that's what they're objecting to is, you know, this focusing to a corresponding point.

**MR. KNIGHT:** Right. Corresponding collection of points. And I think -- and I understand that, too, having corrective lenses myself, is that you can still have an image, even if it's not sharpened to as much as you can.

If you think about the ELMO here, right? We were doing adjustments and it was really blurry, and then we finally found the focal point where it's sharpest.

The light rays, when we're getting there, they're still moving toward convergence. They're still focusing. It's just whether you -- the surface here is at the focal point. If it's at the focal point, there's full convergence. If you're a little bit further up, the light rays are still focusing, they're just not



focusing to corresponding points. And so that's the difference between a blurry image and then a sharp image. It's exactly at the focal point.

They're both representations of an object, but one -- the critical thing we're thinking about --

I'm sorry. Do you have a question?

**THE COURT:** Go ahead. Finish.

**MR. KNIGHT:** Yeah.

One of the critical things that we're thinking about when we talk about imaging in optics is the fact that light is converging down.

And we have intrinsic support.

**THE COURT:** So what does your machine do that it wouldn't infringe if I give you your construction here? I'm just curious. Like, again, trying to figure out the effect of my construction.

**MR. KNIGHT:** So the issue that we have is directed towards collimating optical element. We have an internal conflict between what is a collimated beam and a collimating optical element that projects a collimated beam including a first image.

Image is term of art. It's well known by a person of ordinary skill in the art. And a person of ordinary skill, in looking at that particular claim and the function of that claim -- and I believe it's

Claim 14 of the '582 Patent -- they would find these two concepts to be irreconcilable. One of the reasons why is that "image" and "object," they're talking about optical systems in imaging optics. And yet what we have here is a system that is non-imaging.

**THE COURT:** So it's really not an infringement argument, it's that they drafted an impossible claim.

**MR. KNIGHT:** They drafted an impossible claim. The specification doesn't make any sense. And my colleague here mentioned that there is disclosure of a collimating afocal image. Right?

So what is an afocal image? Image is well known for being focused at the focus point; therefore, a collimating afocal image --

**THE COURT:** You're saying it doesn't make sense.

**MR. KNIGHT:** It doesn't make any sense. Because if you have a collimating optical element, you have a collimated beam, right?

And a collimated beam, in the most perfect sense, would just have light rays projecting to infinity. There would be no image play. There would be no place for all the light to converge.

So if you have an image that's baked into what's projected in your collimating optical element,



it's at infinity.

**THE COURT:** All right. So collimating afocal image was in the written description?

**MR. KNIGHT:** It's in the written description as an alternative to a configuration for, I believe, the composite microscope objective. Not even the WDM, not related to the collimating optical element.

**THE COURT:** Okay. Let's step back.

So there's a phrase in the written description "collimating afocal image," which you are telling me actually describes an impossibility. It's a nonsequitur. That's what you're saying?

**MR. KNIGHT:** That's correct, Your Honor.

**THE COURT:** Okay. Do you have any intrinsic evidence from which I could draw that conclusion?

**MR. KNIGHT:** In the way that the patent actually talks about images, and they are very clear with respect to the written description for Figure 9A about what an image is, how -- you know, where it's projected from, and that it's -- the fact it's on an image plane.

**THE COURT:** The problem is, and I would say, having tried to understand and read 9A, give you the benefit of the doubt. It does discuss a phenomenon exactly as you say, but it doesn't preclude that, in the universe of optics, there is a collimating afocal image.



It's an embodiment, it's a description of it. It doesn't say that this is the entire universe of how light is focused to create an image.

I mean, can you show me language where it does that? Again, I don't debate that it supports kind of your, well, it's not inconsistent for sure. But I go back to: What can you show me in the patent that, if I read it, I would conclude, boy, this patent's use of the term "collimating afocal image," it just makes no sense and it's wrong, and it's a real error, and it's not even in the claim, it's in the written description?

**MR. KNIGHT:** All right. So if we go to Figure 25, it talks about a collimating optical element that projects a collimated beam, correct?

And so with the collimated beam, there is no image. And it's inconsistent with the way that image is formed here. So having a collimated afocal image doesn't make any sense.

I appreciate your struggle on this, Your Honor.

**THE COURT:** I've actually never had a case, and, believe me, I've had a lot of cases where there's really nonsensical stuff in patents, and especially in claims. But I don't recall ever having a case where I was asked to just reject, out of hand, you know,



terminology in a written description based on, basically, extrinsic evidence.

**MR. PIVOVAR:** Your Honor, I'm sorry to -- apologize. Can I just remind my colleague there's some intrinsic record from the file history that might bear on this.

**THE COURT:** All right. Lets do this, let's take a ten-minute break. Give the court reporter a break.

(Whereupon, a recess was taken.)

**THE COURT:** All right. Please be seated.

**MR. KNIGHT:** To answer your question from prior to the break about additional intrinsic support for image and image relating to focusing light, I want to draw your attention, Your Honor, to Exhibit 7. This is the prosecution history for the '106 Patent.

I think you looked at it earlier in our first claim construction hearing when they were talking about collimating.

But, in particular, it highlights the fact that there's a difference between collimating and focusing, and focusing is required for image formation.

And so in the highlighted section here, the applicant specifically disagreed that objective lens in the prior art was configured to focus light because the

objective lens collimated rather than focuses. And those two things are not the same.

Now, focusing, they later say involves converging light. And then on Page 10, they indicate that a light that doubled lens 906, focuses, converges on to the image plane 605.

So what that highlights is that there's a distinction for the applicant between collimating and focusing. And when we talk about image formation, given that we specifically reference an image plane, we are talking about focusing light.

**THE COURT:** So --

**MR. KNIGHT:** Sorry.

**THE COURT:** You don't have to apologize.

**MR. KNIGHT:** Didn't want to interrupt you, Your Honor.

**THE COURT:** Can an image be formed by collimating light?

**MR. KNIGHT:** No.

**THE COURT:** It's because the rays are parallel, right?

**MR. KNIGHT:** Correct.

**THE COURT:** All right.

Definitely think, when you want me to construe the term this way, that it can be formed by



converging rays.

**MR. KNIGHT:** That's correct.

**THE COURT:** How about diverging rays? Can an image be created by diverging rays?

**MR. KNIGHT:** Not a real image, Your Honor, to be technically correct.

**THE COURT:** Can you show me, in the intrinsic evidence, where the creation of an image by diverging rays is precluded?

You can speak with them if you want.

**MR. KNIGHT:** One moment, Your Honor.

(Counsel confer.)

**MR. KNIGHT:** Your Honor, I think the question as to whether a image can be formed by diverging rays highlights the difference between a real image, which is what we have been talking about, and a virtual image.

And the claims, themselves, talk about projecting a first image or producing a second image. And that indicates a certain directionality, in that the image has to be formed at some point after the optical element.

With a virtual image, that image actually forms prior to the optical element.

And if we could pull up a slide that talks about a virtual image. Down a couple more, please.



Thirty-eight. All right.

So when we're talking about a virtual image, this goes to your question, Your Honor, about whether you can form an image by diverging rays. Well, the image itself doesn't actually form, you know, after the light passes through the optical component. And that makes sense. There's no convergence.

And rather, what you do when you're talking about a virtual image, is if you were to orient those rays and pull them back to the point of convergence, that's where the virtual image would be. It's virtual. It doesn't exist.

If I can make one additional point, Your Honor.

**THE COURT:** Sure.

**MR. KNIGHT:** So one of the problems that we have with representation of an object in that it could include a collimating afocal image is that from what I heard from counsel is that any kind of light at any point after it passes through a collimating optical element can qualify as an image.

And given that the claims in the '582 Patent specifically recite a first image and second image, we have a notice issue.

How am I to determine if I'm infringing and



where the first image is or where the second image is, and how do I distinguish between those two, if I'm using a collimated beam, and there's no actual focusing of the light to a particular image point or collection of image points on an image plane?

And, Your Honor, just one last point. I know I said earlier, one last point, but this is truly one last point.

The pictorial representation, I know we've already discussed it, but as Your Honor might be aware, that didn't come out of the ether. We actually referenced a modern optical engineering dictionary, and that's where it arises. So it's --

**THE COURT:** Do you know, is "representation" a defined word in that dictionary?

**MR. KNIGHT:** We will look into that for you and get back to you.

**THE COURT:** All right. Give me a second.

**MR. KNIGHT:** All right. Thank you, Your Honor.

**THE COURT:** Does the plaintiff...

Oh, you're back. All right. Sorry.

Can you have an image formed by collimating rays?

**MR. DENNHARDT:** Of course you can. A

collimated afocal image, the specification tells us that.

**THE COURT:** Other than that reference to which is Column 36, Lines 25 through 32 of the '582 Patent, can you point to anything else that shows that you can have an image formed by collimated light rays?

**MR. DENNHARDT:** Well, there are at least two references to collimated afocal image in the specification. I know Your Honor has them available and can control F through them. So you will find two of them in there.

**THE COURT:** Okay.

**MR. DENNHARDT:** I don't have the other one at my fingertips. I apologize.

But I think, Your Honor, you hit the nail on the head with your question about virtual images.

**THE COURT:** Actually, the question I hit on the head that I would like you to answer is: Other than now there's two references in the written description to collimated afocal images, can you point to anything else, extrinsic or intrinsic, that tells me that there's such a thing as collimated afocal images or, in other words, that there's an image produced by collimated light?

**MR. DENNHARDT:** Yes, Your Honor. The claims. The claims all tell you that a collimated beam produces an image. It's all over the claims.

**THE COURT:** Okay. So that's it, though. It's the claims, and it's the two references in the written description?

**MR. DENNHARDT:** The claims and the two references in the written description are the ones that specifically refer to a collimated afocal image.

There's also --

**THE COURT:** Okay.

**MR. DENNHARDT:** Sorry. There's also, recall earlier, I pointed you to Columns 56 through 58 that are talking about Figure 25 in a context of a different embodiment, and it talks about --

**THE COURT:** Well, time out. Hold up. Let me just get it.

**MR. DENNHARDT:** Yeah. It's at the very bottom.

**THE COURT:** Let me just pull it and find it.

**MR. DENNHARDT:** It's at Column 56.

**THE COURT:** All right. So we're now in the '582 Patent, Column 56?

**MR. DENNHARDT:** That's right.

And all the patents have the same specification so it's --

**THE COURT:** Great.

**MR. DENNHARDT:** -- it's across the way, but



yes.

At the very bottom, around Line 57.

**THE COURT:** All right. So that's right, it's a discussion of Figure 25, 26, 27, and 28. Yep, go ahead.

**MR. DENNHARDT:** Yep. So it's talking about that. It goes through Column 58.

Throughout this it references "image" repeatedly. For example, you will see one at the very bottom, Line 67, "produces an image of substantially the same size."

**THE COURT:** But you're telling me this is showing light created by collimated rays because at the 902, it's emanating out of the 902 as a collimated ray?

**MR. DENNHARDT:** It's that, and you will also see that again at...

Here we are.

**THE COURT:** Okay. Just before you get any further, but doesn't it...

Isn't there convergence of the rays after they leave? In other words, prior to there being an image, there's convergence, correct?

**MR. DENNHARDT:** Prior to there being... no. I don't think so.

**THE COURT:** So let's do this. Pull up



Figure 25.

**MR. DENNHARDT:** Sure. You want me to put it on the screen, Your Honor?

**THE COURT:** Sure, that'd be great.

**MR. DENNHARDT:** Actually, I'll do it on the ELMO, if that's all right.

And maybe, Your Honor, before we get there, just because this talks about Figure 25, Columns 44 through 46 repeatedly refers to a collimated beam forming an image, right?

So "collimating optical element projects a magnified image." Here we see "may use an achromatic doublet lens as the first collimating element." Talks about since images, right, are created before the focusing lens.

So there is no convergence, right? The image is created before the focusing lens. So the entire description of Figure 25 is about images and collimated beams.

So it's all over the place in the patent. The claims tell you that a collimated beam forms an image. The specification tells you, and then there is the specific references to the "collimated afocal image," which identifies a particular kind of image in a collimated beam.

from a frame the thinking on this. You're right, the specification and the rules of claim construction would suggest that you could say that a collimated beam forms an image because we see it in the spec, and we see it in the claims.

But they also haven't pointed you to anything that says, well, you can never have a collimated beam with an image, right? There's simply nothing in the record that says that other than --

**THE COURT:** Their problem is they have to point to extrinsic evidence. I totally agree with that.

And, now, they do cite this prosecution history discussion. I'm not sure, though, it's got to be, I guess, clear and unequivocal, I mean, you know, under the rules of interpretation.

**MR. DENNHARDT:** So let me point you to a different portion of the prosecution history that, in fact goes the other way.

Well, let me address first their point and and then I will point you to something else.

So what they said, Your Honor, is converging is different -- excuse me -- collimating is different from focusing. I told you at the last hearing we don't dispute that.

They also said a focused beam can form an



image. We agree with that too, right?

What that doesn't tell you is that a collimated beam can't form an image. So there is a step missing in that.

And here, this is our Exhibit C from our supplemental briefing, Your Honor. This is from the examiner interview, right? This is from the file history. And he says, "We're talking about collimating optical element that projects a magnified image."

So he has found that there is this connection between a collimating optical element forming an image and the lens that doesn't.

So, in fact, I would submit, Your Honor, that they are missing a step in their assessment on the file history and, in fact, the file history goes the other direction, right?

**THE COURT:** What's a magnified image?

**MR. DENNHARDT:** So a magnified image, I believe, is when the image is bigger than the original object.

**THE COURT:** Right. And how does it make it bigger? Doesn't it have to converge or diverge the rays?

**MR. DENNHARDT:** I would submit not, Your Honor.

**THE COURT:** I mean, otherwise, I mean,



collimated light can only go through something that's pure glass. That's not a lens.

I mean, if you're going to magnify it, don't you need a lens to magnify?

**MR. DENNHARDT:** So you might need a lens to magnify. Actually, Figure 25 shows exactly this.

So we've got the object here. The actual object isn't shown. Right? But it's showing you this is points on an object.

So the light then diverges, right? It goes into the objective, the collimating optical element -- excuse me. It goes into the collimating optical element 902, right?

Well, now we see the light that's coming out the size of that beam is actually bigger than the points, right? So, now, this would be magnified because it's bigger than the actual object, and it's a collimated beam and Figure 25, the description of Figure 25, tells you that there's an image in here.

So a magnified -- and a magnified image can absolutely be created in a collimated beam. And that's exactly what the examiner found in the file history.

**THE COURT:** All right. What you both agree on is that the image has to be formed by a light.

**MR. DENNHARDT:** Agree, Your Honor.

**THE COURT:** Okay.

**MR. DENNHARDT:** So it's all over the place, Your Honor.

I'm happy to pull up Figure 25 if you like.

**THE COURT:** And your expert would say there is such a thing as a collimated afocal image?

**MR. DENNHARDT:** Of course.

**THE COURT:** Well, I know that. There's enough money out there for experts to tell you anything.

**MR. DENNHARDT:** Your Honor, I think it would be hard pressed to suggest that that's not something that exists because, again, the specification tells you it exists, right? So --

**THE COURT:** No. No. I'm sorry. I just don't accept that, for what it's worth.

I mean, there's too many bad patents filed. People will say whatever they need to say. I'm not going to just accept for you...

You might be right as a matter of claim construction, but in the world out there, to be honest, you know, my gut tells me people don't think an image is created by collimated light. That's what my gut says. It's just the rules of claim construction might say otherwise here.

**MR. DENNHARDT:** And, Your Honor, if I could

**MR. KNIGHT:** Yes.

**THE COURT:** You agree, right?

**MR. DENNHARDT:** Your Honor, the last point that I would make is, I think my colleague on the other side, in fact, made clear what's going on here.

They're trying to limit the claims to real images, right? You asked can diverging rays form an image. He said, well, not a real image, but he conceded that a virtual image can be created, right?

Well, the claims don't say real image. He wants to limit us to real image, right? He wants to limit us to the rays have to be converging. Well, that excludes virtual images, which the claim doesn't do, right? The claim just says "images."

It excludes collimated afocal images, which are expressly discussed in the specification and expressly discussed throughout the written description of Figure 25. So there's simply nothing here that says a collimated beam can't form an image. All of the evidence goes the other way. All of it.

**THE COURT:** Right. But you say "all the evidence." There's no evidence in the written description of virtual images.

**MR. DENNHARDT:** Correct.

**THE COURT:** Okay. But there is, there is



evidence of a disclosure of a collimated afocal image --

**MR. DENNHARDT:** Collimated afocal image --

**THE COURT:** -- which cannot be reconciled with their definition.

**MR. DENNHARDT:** That's right. You got it.

**THE COURT:** Anything else?

**MR. DENNHARDT:** I think that's it, Your Honor.

**THE COURT:** One other question for you, sir, come on up.

**MR. KNIGHT:** Yes.

**THE COURT:** All right. You can go ahead and say what you want to say, and then I'll ask you a question.

**MR. KNIGHT:** Thank you, Your Honor.

So my colleague here just said that there's no evidence in the written description that conforms with our construction, and that's -- we expressly talked about Figure 9 --

**THE COURT:** Yeah. So --

**MR. KNIGHT:** -- as well as Figure 36.

**THE COURT:** Actually, I don't believe that's what he said.

First of all, I agree with you. Figure 9 is consistent with what you say. The question is: Is there any disclosure of a virtual image? And I think he



says, I don't think it's disputed, there is not.

**MR. KNIGHT:** There is none, and it wouldn't make any sense.

**THE COURT:** But that favors you, so give him credit. He actually acknowledged that there is no virtual image disclosed. So then you can come back and say, see, there's no virtual image disclosed. But there is a collimated afocal image disclosed.

And now can you point to any claim which would, if I accept your construction, allow for a collimated afocal image?

**MR. KNIGHT:** No, Your Honor, because --

**THE COURT:** I don't think you can.

**MR. KNIGHT:** Right.

**THE COURT:** I think that's the right answer. I don't think you have a choice.

**MR. KNIGHT:** One additional point that I --

**THE COURT:** Just wait.

**MR. KNIGHT:** Sorry, Your Honor.

**THE COURT:** I think we left it, with respect to collimated, I didn't construe it, right?

**MR. KNIGHT:** Correct.

**THE COURT:** And I think what's going to happen at trial is your experts are going to get up there and your expert's going to say, if I'm looking at Figure 25,



as soon as it leaves 902, it's not collimated, it's impossible, or it just wouldn't be collimated; is that right?

**MR. KNIGHT:** I don't know that that's accurate, Your Honor.

**THE COURT:** Okay.

I'm troubled by what I'm going to have to construe this as, but I just don't see a way around it, and part of it's based on what I think is just common sense and minimal understanding of optics that I have.

For instance, the idea that you can have magnification without having some kind of divergence or convergence doesn't make sense to me.

Does it make sense to you?

**MR. KNIGHT:** It does not, Your Honor.

**THE COURT:** And that's what their position is.

And the idea that you could have collimated, purely collimated light create an image doesn't sound right to me.

But the patent discusses collimated afocal images. And as I say, my gut tells me, my limited experience tells me you're right.

And I think this is a great example of something that points to what I think just doesn't make sense in claim construction, which is that we begin with

the, quote/unquote "plain and ordinary meaning in the context of a patent," unquote. And then we're told to look to extrinsic evidence solely at the beginning.

But if you think about it, ordinary is a normative term. It has to refer to extrinsic evidence in order for the term "ordinary" to have any meaning. It just doesn't make sense. But that's the way we're required to construe patents.

And the problem for you is that the patent talks about a collimated afocal image. And so I think the limitation you want to impose, I can't, under the rules of construction.

I do think it would be better than just deferring to the plaintiff's proposal of representation of an object to add that. It has to be a representation of an object created by light or emanating from a light source.

It sounds like you'll agree to that, I mean, but you're reserving your objections, I understand. But you'll agree at least that much is true, correct?

**MR. KNIGHT:** That much is true.

**THE COURT:** Yeah. So I think that I'm going to construe it that way, which is, in effect, the plain and ordinary meaning, at least upon to which you can all agree.



And then you're going to make an indefiniteness argument, and what I am going to do is talk to you at the end of this as how we should maybe manage the case going forward, and maybe we should have some briefing and motion practice on some of these issues about adequacy, written description, enablement, and indefiniteness. All right?

**MR. KNIGHT:** Thank you, Your Honor.

**THE COURT:** All right. So that takes care of "image."

I've construed it as a representation of an object created by light or emanating from a light source.

You know, I refer you all, I had, I call it the Bacon case. I can't remember the title of the case, but Morris Nichols is in here somewhere, aren't they?

**MR. TIGAN:** It wasn't my case, Your Honor, but it might be *Hormel versus* --

**THE COURT:** Thank you. Good memory. Mr. Tigan, good memory.

You might want to look at that because what I did in that case was the defendant was so sure they had a winning indefiniteness argument that I offered them the opportunity to just litigate one summary judgment motion, but we would do it right away.



And as outlined in my opinion in that case, and I was affirmed, the Federal Circuit has treated indefiniteness, even though you can have competing expert testimony, as an appropriate subject for summary judgment motion.

And in that case, I had a hearing, and I heard competing expert testimony and made determinations as to credibility and ruled and found the patent indefinite. And it was affirmed.

You all might want to read that case and we can talk about whether we should have some kind of similar mechanism here.

Okay. That takes care of "image."

Want to do "portion," the "portion" term next?

**MR. DENNHARDT:** Me again, Your Honor.

**THE COURT:** All right.

**MR. DENNHARDT:** So the dispute here, Your Honor, is whether "portion" gets its plain and ordinary meaning.

It's a well-understood term. The jury is going to know what portion means. Courts repeatedly hold that "portion" has its plain and ordinary meaning because a jury knows what it means, and multiple courts have construed it as a part of any whole, either



separated from or integrated with it.

Cytek's construction, by contrast, builds in a bunch of stuff that's simply not part of the word "portion."

**THE COURT:** Now, it sounds like, well, maybe it doesn't sound like, but would you agree to their construction if I just deleted "within a defined beam"?

**MR. DENNHARDT:** I think we can do that.

**THE COURT:** Okay. So let's just focus on that.

**MR. DENNHARDT:** Sure.

I think the place to start, Your Honor, is they never addressed this. We asked them, what is a defined beam.

**THE COURT:** Hold on a second.

Would you agree to that? I'll just leave it at that.

**MR. KNIGHT:** We can agree to that.

**THE COURT:** All right. Great. I like that.

**MR. DENNHARDT:** Love it.

**THE COURT:** Man. All right. So I'm going to construe "portion of the," per stipulation by the parties, to mean a subset of the spectrum of wavelengths of light.

All right. Can we have more of those types

of constructions, please.

What's next?

Why don't we do "first" and "second" image.

**MR. CHEN:** Should I go first?

**MR. DENNHARDT:** I had to get to my slides.

**THE COURT:** Okay. No problem.

**MR. DENNHARDT:** Three in a row. All right.

So, Your Honor, we understood your ruling as it related to curved mirror talking about Claims 1 and 5. What you found was that -- well, there was an order required between them. We understand your ruling on that.

This term goes exactly the other way. Right? So what we see in Claim 1 is an optical relay element produces a first image, and what we see in Claim 12 is the collimating optical element further configured to produce a second image.

We know from up here that the optical relay element receives light from the collimating optical element. So the order of things in this claim is collimating optical element, relay. Right?

The relay produces the first image and the collimating optical element produces the second image. So that tells us the second image comes before the first image. It goes on to say exactly that. The first image



is a reimage of the second image. So, of course, the first image can't come first because it can't reimage something that doesn't exist yet.

We show this -- and we understand, Your Honor, the claim is not limited to Figure 25. I'm going to do it in the context of Figure 25 because I think it helps visually.

So we see exactly what the claim says depicted here. So we've got a collimating optical element, we've got the relay that receives light from there, and it produces the first image. That's in purple.

Then we see in Claim 12 the collimating optical element produces the second image, the light then goes to the optical relay element, and it produces the first image.

So, of course the first image can't precede the second image. The claim is written in the opposite direction. So finding it the other way would be completely inconsistent with the claim language.

They rely on the '412 Patent. And, Your Honor, I think I heard you say earlier that the claims of the '412 Patent are part of the written description.

**THE COURT:** The original. No. What I said was the original claims of the patent that ended up being



the '412 Patent count as prosecution history.

**MR. DENNHARDT:** So I don't think that's exactly what the case that they cited for you says. It says the original claims -- but it's all talking about in the same patent, right?

So the original claims are claims before amendment. Right? That's part of the written description. That's part of the specification.

Claims from a different patent are not part of the written description of that patent, and I think if you --

**THE COURT:** That patent is the original patent. It's the parent patent.

**MR. DENNHARDT:** Right, but --

**THE COURT:** So, in other words, the same reason written description kind of freezes in time what was the inventor thinking. And it looked to me like the case law was pretty compelling. You count not only the written description, but you look to those initial claims.

**MR. DENNHARDT:** I think -- we would submit, Your Honor that that's not what that case says. It's only talking about one patent. It's talking about --

**THE COURT:** Well, I haven't relied on it yet.

**MR. DENNHARDT:** I understand. I understand.



**THE COURT:** I did rely on it. I did rely on it. It was probably the fourth source of evidence I relied on. But go ahead.

**MR. DENNHARDT:** Understood. I just wanted to make sure because I don't think we addressed that point.

So we don't think the '412 Patent has any relevance here, but in any case, it's different from the actual asserted claims, right?

So the claims, as we just saw, tell us that the second image comes sequentially before the first image.

They would exclude that embodiment, right? So their construction would render those claims, again, impossible because it's totally inconsistent. We just saw that. It's also inconsistent with Figure 25. And it renders Claim 1 and its dependents an impossibility.

So now that's Claim 1 and Claim 12. So let's now turn to the second set of claims that also use this term. So that's Claims 14, 20, and their dependents, right? So they actually do the opposite.

They say collimating optical element projects a collimated beam including a first image. Then they say -- excuse me -- the same thing as in Claim 20. So both 14 and 20 say collimating optical element produces the first image.

So let me build that for you here. We've got the collimating optical element. It includes -- projects a beam including the first image.

Then Claim 14 goes on to say there's an optical relay element and it produces a second image.

So what we see now is Claims 1 and 12 say "second" before "first." Claims 14 and 20 say "first" before "second."

What does that tell us? Well, it tells us that "first" and "second" are not importing any order. They're just designating different images in the system. So there is no way to find their construction consistent with both of these claims.

And so what we would submit, Your Honor, is that "first" and "second" here are very clearly not being used to indicate any sequence or order. They're just used as a designation, Image A, Image B.

I think that's it. Easy.

**THE COURT:** All right. Thank you.

**MR. DENNHARDT:** Thanks, Your Honor.

**THE COURT:** Mr. Chen.

**MR. CHEN:** Thank you, Your Honor.

So we followed your Court's -- Your Honor's instructions at the last hearing, and we looked for evidence in the intrinsic record, specifically the



original specification, to support our construction for "first and second image" having positional significance and the specification is supportive, highly supportive of our position.

**THE COURT:** So I am not saying you don't have arguments that are supportive, but here is the challenge for you.

**MR. CHEN:** Sure.

**THE COURT:** So Claim 12.

**MR. CHEN:** Yes.

**THE COURT:** And Claims 14 and 20.

**MR. CHEN:** Sure.

**THE COURT:** And those are big challenges.

**MR. CHEN:** Sure. Understood, Your Honor.

So would you like me to address those first and then --

**THE COURT:** Yes. Go ahead.

**MR. CHEN:** Okay. So let's go to Claim 12.

So Claim 12 is not part of the original specification. It's also not asserted here by the plaintiffs and for good reason, because we think had they asserted it, it would be indefinite. We think what the patentee meant to write is "wherein the second image is a reimage of the first image." That's the only way it makes sense. So that's our response to Claim 12.



**THE COURT:** All right.

**MR. CHEN:** I think, if I'm not mistaken --

**THE COURT:** 14 and 20, they put them together. How do --

**MR. CHEN:** Yeah. Claims 14 and 20, what they're trying to do is they are trying to map Claims 14 and 20 onto Figure 25. And again, that's not proper.

There doesn't have to be every single claim, as Your Honor correctly recognized, mapping onto exemplary embodiments. That simply is not required.

And what we see is in the original claims, right here, there is a clear mapping of a collimating optical element that captures light from the extended light source and projects a magnified image of the object as a first light beam, right?

So it travels through and it gets focused down by the focusing lens 905, and then there's the image.

And then for dependent Claim 3, we see that the image relay optical element 907 is arranged to receive a color band of interest of the first light beam, the image relay optical element configured to project a second image --

**THE COURT:** So let's say I agree with you. Let's do this.



**MR. CHEN:** Yes.

**THE COURT:** I think you are probably right, that's the better description, and that Claims 14 and 20 weren't meant to read on Figure 25.

**MR. CHEN:** That's right.

**THE COURT:** Where does that end up? I still am stuck with I've got 14 and 20 --

**MR. CHEN:** Yes.

**THE COURT:** -- which describe not only a nonsequential but the reverse sequential, right?

**MR. CHEN:** Well, no. I think 14 and 20 is consistent. "First" is first and "second" is second. I don't see an issue with "image" there.

Only Claim 12, which is not asserted, has this supposed issue, but we think it would be indefinite Claims 14 and 20, no issue there. First image, second image in sequence.

If Your Honor would like me to, I could actually try to sketch out what I believe Claim 14 would look like.

**THE COURT:** Hold up.

I can't see that. Maybe you can focus on it.

**MR. CHEN:** Yes, yes, I will, Your Honor. Just trying to make it look...

So you can have a light source, so just to

follow the claim language here. You have a collimating optical element arranged to receive light from a light source. The collimating optical element configured to project a collimated beam, including a first image where the collimating optical element has a collimated distance.

And then you have an optical relay element. So as you recall in Figure 25, you have --

**THE COURT:** So I get you can draw a picture, but does it preclude the second image from coming before the first image?

**MR. CHEN:** Yes. I believe it does because it says there's an optical relay element. That's the mirror, right? That's the optical relay element arranged to receive the collimated beam. The optical relay element configured to extend the distance of the collimated beam, wherein the optical relay element comprises a curved mirror or concave shaped dichroic filter configured to produce a second image, right?

And so this optical relay image -- sorry, optical relay element has to be configured to extend the collimated distance of the collimated beam, right?

And so it's receiving the collimated beam -- here's the curved mirror -- and then it's projecting, basically, onto a second image. So it is sequential.



**THE COURT:** All right. And then just in a nutshell, though, your argument for why...

You admit there's a presumption that first and second are not sequential under the law, right?

**MR. CHEN:** I think the law is it's not like it's a rule, but it basically says that if there's intrinsic evidence that requires a sequence, then there should be a sequence. And here there is a lot of intrinsic evidence --

**THE COURT:** But if I have a comprising claim where "first" and "second" are used, I'm to assume that it's not sequential unless there's evidence to the contrary.

**MR. CHEN:** The *3M* case, I just want to make sure I get it correct. I don't want to misquote the case. And the *3M* case is very fact-specific, whereas in plaintiff's original briefing, they -- the *3M* case is in the bigger binder. Sorry, Your Honor.

**THE COURT:** That's okay.

**MR. CHEN:** May I have a minute?

**THE COURT:** I mean, your point, I guess, though, would be it's not a presumption like means-plus-function is a presumption.

**MR. CHEN:** No. That's right.

**THE WITNESS:** It's, again, you've got to



read -- it's *Phillips*. You've got to read it in its totality --

**MR. CHEN:** That's correct.

**THE COURT:** -- in the light of the specification.

**MR. CHEN:** That's correct.

**THE COURT:** And therefore, your point would be there is no nonsequential use of "first" and "second" in the written description.

**MR. CHEN:** That's right.

**THE COURT:** You shouldn't impose such a limitation into the claims.

**MR. CHEN:** That's correct. Absolutely correct. Thank you.

Yes, yes. So the -- I have it now here in front of me.

Thank you, Ms. Flanagan.

It just states, "The use of the terms 'first' and 'second' is common patent law convention to distinguish between repeated instances of an element or limitation."

But then it goes on to say, "In the context of Claim 1," so it's very context specific, and the *3M* case involved a first pattern and second pattern. It wasn't talking about an optical path of light. It's



very different than the other two cases that are cited. One is, like, on an exercise machine, if I can quickly point out that.

**THE COURT:** What are you looking for, a case law thing?

**MR. CHEN:** Oh, yeah. Just the case law that they try to use in their supplemental briefing. They added some --

**THE COURT:** Yeah. Let's go back to it. We're limited on time.

**MR. CHEN:** Yes, understood.

**THE COURT:** So let's stick to the --

**MR. CHEN:** Intrinsic evidence.

**THE COURT:** Let's look again, your summary of...

You are saying it's sequential here --

**MR. CHEN:** That's it, right.

**THE COURT:** -- because Figure 25 --

**MR. CHEN:** Yes.

**THE COURT:** -- as interpreted by the original claims in the original parent application.

**MR. CHEN:** And the original specification. The written description specifically says that there is an image near focusing lens 905, and then it says the concave mirror 907 therefore creates a second image of

the collimating lens 902 near a second focusing lens 908.

**THE COURT:** Right. So again, you're saying 25 is pretty clear that image --

**MR. CHEN:** That's right. As your --

**THE COURT:** -- is also sequential? Okay.

**MR. CHEN:** As Your Honor has recognized.

**THE COURT:** So that's your biggest piece of evidence. All right.

And your second would be --

**MR. CHEN:** The original claims.

**THE COURT:** -- the original claims which purport to read on it.

**MR. CHEN:** Correct, Your Honor.

**THE COURT:** Okay. Anything else?

**MR. CHEN:** We think the claim language 14 and 20 is also supportive. It requires a sequence of "first" and "second."

**THE COURT:** Okay.

**MR. CHEN:** And then that is -- and one more piece of evidence is when they wanted to use "additional," they were able to use the word "additional" in other patents.

**THE COURT:** Right. Okay.

**MR. CHEN:** Thank you.

**THE COURT:** Thank you.



All right.

**MR. DENNHARDT:** Let me start with the *3M* case, Your Honor. It says, "First and second should not be read to impose a serial or temporal limitation unless the intrinsic evidence requires sequential ordering."

They are trying to tell you, well, the absence of any "first" and "second" means that "first" and "second" have order. Well, that's not what this says, right? The absence of something doesn't require that a limitation have sequential ordering, right? So their position is just inconsistent with the *3M* principles.

**THE COURT:** All right. Hold up.

So I'm just having a hard time with the quote here. Can you point me where it says the use...

What you're referring to. You have got an excerpt on the slide from *3M Innovations* at Page 1371. And at the end of...

I see where there's some discussion about "the terms 'first pattern' and 'second pattern' should not in and of itself impose a serial or temporal limitation."

By the way, you omit pretty important language. You omit the introduction, the words that immediately precede that, which says "in the context of



Claim 1." Okay. So that's the first thing that I am a little troubled by.

But I can't find where does it pick up and say "unless intrinsic evidence requires otherwise"?

Can you show me the case?

**MR. DENNHARDT:** I'm sorry. I didn't hear the end of your question. I apologize.

**THE COURT:** So I am looking at your quote from the case.

**MR. DENNHARDT:** Yeah.

**THE COURT:** And I see that language you've got up on the first line of your box, until we get to temporal limitation.

Where is the "unless"?

**MR. DENNHARDT:** Sorry. "Unless" is in brackets. We added that to streamline this.

**THE COURT:** Okay. But where does it pick up?

**MR. DENNHARDT:** Your Honor, I apologize. I don't have the full case in front of me. I think we'd be happy to follow up with the full quote.

And certainly, Your Honor, to the first point, we thought, you know, including "first pattern" is -- makes clear that we are not talking about generally, right? We are not saying first never, right? We are talking about first here. So we weren't meaning



to mislead you on that, Your Honor.

And I think, Your Honor, there's -- this is a pretty standard principle across --

**THE COURT:** Well, since it is, show me another case. Because I am concerned it's misleading.

**MR. DENNHARDT:** Sure. Here's three cases. The first one is *3M*, we've already talked about that one. Here --

**THE COURT:** And that doesn't hold it. Just so you're clear, *3M* does not say that unless the intrinsic evidence requires otherwise, first and second are not sequential. Doesn't say that.

**MR. DENNHARDT:** So this is the *Free Motion* case. Here is it's saying, "First does not denote spatial location. The correct construction of the word first merely associates the first pivot point with the first extension arm."

That's what we have here. First relay, first dichroic filter, first focusing lens, first semiconductor detector, right? It's associating all of these in a group of elements because they all interact together.

**THE COURT:** All right. So show me in the written description where there's a "first" and "second" other than Figure 25.

**MR. DENNHARDT:** Where there's -- it gets to, are you asking?

**THE COURT:** Anywhere, yeah, just show me. What I want you to show me is show me in the intrinsic evidence where it would require or support nonsequential.

**MR. DENNHARDT:** So I think we would posit that it's the opposite, right? The claims require it.

If we go to 39, right? Again, we've talked about this already, right, but this requires it. And the claims, of course, are intrinsic evidence, and so their construction -- and they conceded this, right? They said their construction can't be reconciled with Claim 12. They say, oh, well, if we rewrite the claim, then it's consistent.

**THE COURT:** Agree. And you're not asserting Claim 12 here, right?

**MR. DENNHARDT:** Well, you're not -- we're not, Your Honor, but it is the same point that they made --

**THE COURT:** All right. So other than Claim 12 --

**MR. DENNHARDT:** -- on curved mirror on Claim 5. Sorry.

**THE COURT:** Dispense with Claim 12. Other than that Claim 12, show me intrinsic evidence that requires sequential...



Sorry. That actually would either not require sequential or would show the opposite of sequential, which I think they admit Claim 12 does.

**MR. DENNHARDT:** Sure. I don't dispute, Your Honor, that I can't point you to a different part of the written description, but I think that's flipping the burden here. Right? It's flipping it on us to say, well, show that they're not sequential, and that's not right.

**THE COURT:** No, no. The reason, well, I'm not going to get into an argument with you. Okay. So you can't show me anything.

Now, then, you mentioned Claim 14 and 20, and I challenged them to address that. Mr. Chen did a pretty good job.

So here's your opportunity, show me why I've got to read 14 and 12 to not be sequential.

**MR. DENNHARDT:** Sure. Let's put aside Claim 12. That's the one that has second image, so I'm not going to talk about second image.

**THE COURT:** If I said 12, I misspoke.

**MR. DENNHARDT:** No, you didn't. You didn't. My slide has both on there, and I just wanted to make clear, I'm not going to talk about the portion of Claim 12 that has "second image."



**THE COURT:** Right. But do it without referring to Figure 25. Just look at the language of the Claim 14 and 20.

**MR. DENNHARDT:** Sure. Yeah.

Claim 1 -- and I'll explain. I'm starting with Claim 1, but I'll explain that. So it's the optical relay element produces the first image. Right?

**THE COURT:** Okay. Hold on a second. I do want to make sure I get this right.

For starters, Claims 14 and 20, do they depend from Claim 1?

**MR. DENNHARDT:** They're both independents.

**THE COURT:** Okay. So why am I looking at --

(Speaking simultaneously.)

**MR. DENNHARDT:** I'm sorry. I'll get there. I promise.

So Claim 1, optical relay element reflects the beam to produce a first image.

With me?

**THE COURT:** Yes.

**MR. DENNHARDT:** All right. Now, Claim 14 says the optical relay element produces a second image.

So the optical relay element in Claim 1 is producing the first image, and then Claim 14 and 20 is producing the second image.



That tells you, Your Honor, that we're not talking about the order of things in the optical path. It says what comes off of the optical relay element in Claim 1 is the first image and in 14 and 20, it's the second image. That confirms that "first" and "second" is not giving you an order.

**THE COURT:** Okay. All right. Anything else?

**MR. DENNHARDT:** Just briefly, Your Honor. They didn't talk about it, but it's in their brief and in their slides.

On the numerical ordering of elements, the MPEP expressly tells you that you're not to give weight as to the scope of the claims based on the numbering of the elements.

If we go to 13. Thank you.

Use of reference is to be considered having no effect on the scope of the claims. So -- and then the -- this is the *Core Wireless* case from the Eastern District of Texas case.

**THE COURT:** Do you have a Federal Circuit case which says that?

**MR. DENNHARDT:** The Federal Circuit has never addressed that issue.

**THE COURT:** Okay. So I'm not listening to what --

(Speaking simultaneously.)

**MR. DENNHARDT:** So the MPEP, I think, applies to patents, and courts have said that MPEP is given the weight of law.

And, I think, Your Honor, I would also say as a general matter, right, the same claim term is be to interpreted consistently throughout the patent.

So they can't reconcile it with Claim 1, right? They want to say, well, let's just put aside Claim 1. But "first image," as a matter of law, is to be read to have the same meaning throughout.

And the only way to do that is to say, well, "first image" is not giving you a sequence or order. The same claim term throughout the claims is presumably -- is presumptively given the same meaning.

**THE COURT:** Presumptively. But it's not required.

**MR. DENNHARDT:** It's not. That's right. But there's no evidence to the contrary here. There's nothing that would suggest, well, let's give it this meaning here and this meaning here.

**THE COURT:** Okay.

**MR. DENNHARDT:** And the last thing I would point to, Your Honor -- again, if we go back to 39 -- is what my colleague on the other side had to do was he



couldn't say, well, first and second, that gives you enough. He had to say, well, it tells you the relay does this. And then it gets passed to this other thing and then it gets passed to this other thing.

That confirms for you, Your Honor -- and I'll show it in the context of 14 and 20 -- that "first" and "second" is not giving you the sequence, it's the other language. It's the fact that it projects light to the -- it projects the first image and then the optical relay element receives the light from the collimating optical element and produces the second image.

So "first" and "second" are not giving you the order, it's the way that it describes the progression of light that gives you how things flow within the optical path, not "first" and "second."

**THE COURT:** All right. What are the asserted claims of the '582 Patent right now?

**MR. DENNHARDT:** So it's -- I'm not sure -- it's at least 1, 14, and 20. So each of those three independent claims that we've been talking about are each asserted.

**THE COURT:** And for the '443 patent, I was confused by the briefing on that. It said you dropped 17 and 18?

**MR. DENNHARDT:** Yes, Your Honor. In view of



your ruling, so that we didn't have to sort of further dispute this, we said let's put those claims aside.

**THE COURT:** They briefed 16 and you didn't, and I'm confused.

**MR. DENNHARDT:** It's not asserted. You have to ask them.

**THE COURT:** Okay. Thanks.

**MR. DENNHARDT:** I have the full list of asserted claims for the --

**THE COURT:** What I wanted to make sure was --

**MR. DENNHARDT:** -- the independent claims.

**THE COURT:** -- whether 1, 14, and 20 are asserted.

There is no "second image" in Claim 1; is that right?

**MR. DENNHARDT:** That's right.

**THE COURT:** So what I'm going to do is, I'm going to construe "second image" in Claim 14 and 20 to mean an image that is created after the first image.

That's not exactly what you asked for, defendant, but I think -- are you okay with that?

**MR. CHEN:** Sequentially after, not like the third one or the fourth one.

**MR. DENNHARDT:** We would dispute that, Your Honor.



**THE COURT:** Hold up.

I can't do that. I don't think that the claim of 14 and 20 require that. And I'm back to Figure 25. Are there any other disclosures of first or second images other than Figure 25 in the patent?

**MR. CHEN:** Figure 25, which has the written description that very clearly points out, which is the first image and which is the second image. The original claims, which specifically point out --

**THE COURT:** I got that.

Are there any other than Figure 25 and I guess 25A has sequence in it?

**MR. CHEN:** That's right.

**THE COURT:** But is there anything else? Anything else?

**MR. CHEN:** I believe that is it, Your Honor.

**THE COURT:** Okay. And then --

**MR. CHEN:** I want to make sure --

**THE COURT:** Hold up. I'm going to correct myself.

And can you point to me anywhere in the written description where there is an image between a first and second image?

**MR. DENNHARDT:** Standing here today, I can't.

**THE COURT:** Okay. So I'm actually going to

then adopt the defendant's position. It is, it's the second image is created after the first image and there is no intervening image. Okay.

What I don't want to do is go first and second because there's a first image in Claim 1 and there is no second image, and I just don't know what would come up with respect to Claim 1. So I don't want to go there. All right?

So I'm just going to construe second image, for the purpose of 14 and 20. If there's any other asserted claims with a second image, please let me know. Is there?

**MR. DENNHARDT:** I expect there are, but as dependent claims, not independent claims.

**THE COURT:** Then that's fine.

**MR. DENNHARDT:** Yeah.

**THE COURT:** So the "second image" for the purposes of Claims 14 and 20, and the reason I'm construing it this way are, I think it's a natural reading of the two claims, especially when read in light of the specification, which *Phillips* instructs is what we're supposed to do. And the only disclosure of first and second images in the written description are disclosures where the second image follows the first image with no intervening image.



And Figure 25, in particular, in the written descriptions discussed in Figure 25 I find very informative in that regard.

And I don't think that *3M* requires me, the way plaintiff has suggested, effectively to put a presumption against sequencing first and second. And that's enough that I need to say.

**MR. DENNHARDT:** We understand. Thank you, Your Honor.

**THE COURT:** All right. That takes care of "second image."

I'm not going to construe "first image."

All right. Let's see. We've got to move fast. What else have we got?

First and second. Did we do focusing optical element? I forget.

**MR. CHEN:** We didn't do that one yet. We did first and second curved mirror.

**THE COURT:** Let's do first and second focusing optical element.

**MR. KHAN:** Thank you, Your Honor.

So this is an example where the claims that they are asking to be construed, the claims, themselves, require that the second focusing optical element come before the first focusing optical element. And that's



essentially what we're going to try to show today through the claims. And then there is written description support for our position here as well, which we'll also get through.

Starting with the claims. So, in the claims, there's a first focusing optical element, and it receives light from the optical relay. Then it's configured to focus the light onto the first semiconductor detector. And the dependent claims from Claim 1 in the '582 Patent, Claims 7 and 8, they start talking about branches. And they say, hey, so now the filter is going to create a first branch, and the first branch is the light from the collimated optical element received by the relay. That's the first branch.

And then it talks about the second branch. And the second branch goes to the second focusing optical element onto the second semiconductor detector.

And if you sort of -- this is in Claims 1, 7, and 8, the structure of Claim 17 and 18 is almost identical. And so we're going to try to treat them together. If I can show you in a build that we did to show how this all puts together.

So again, we start with the claim saying I've got an optical filter between the collimating optical element and the optical relay.



**THE COURT:** Okay. Can I stop you there?

**MR. KHAN:** Yes.

**THE COURT:** So right now we're discussing Claims 1, 3, 17, 18, and 26.

**MR. KHAN:** Correct.

**THE COURT:** I just want to stop you.

Mr. Chen, right, are you going to argue this?

**MR. CHEN:** Yes, that's correct.

**THE COURT:** Do you agree that Claims 1, 3, 17, 18, and 26 read on Figure 25?

**MR. CHEN:** I do not believe they do. I have to go back and check. The support that we rely on is the original specification, which includes original claims. So both the written description and the original claims support our position.

**THE COURT:** I get you say that, but I just want to know, you've taken the position in the past with a couple of the claims. You are saying these don't even read on Figure 25.

**MR. CHEN:** I believe that's correct.

**THE COURT:** All right. So why don't you just be prepared to answer that question.

**MR. CHEN:** I will.

**THE COURT:** Okay. Sorry. Go ahead, Mr. Khan.

**MR. KHAN:** And, Your Honor, I think the

ultimate conclusion of their construction is it's going to read out all the embodiments because there's no disclosed embodiment in the specification that's going to address what they're trying to do.

But, anyway, let's step through it.

**THE COURT:** Okay.

**MR. KHAN:** So, again, Your Honor, I know -- we're just using Figure 25 for illustrative purposes. We're not saying this is how Figure 25 is described in the patent. So I'm just using Figure 25 to show where the pieces are.

**THE COURT:** Well, do you contend that Claims 1, 3, 17, 18, and 26 all read on Figure 25?

**MR. KHAN:** They do as we understand them. Therefore, they would be consistent with the written description in that regard. They're consistent with the written description for other reasons as well, which we'll get to in just a second.

**THE COURT:** Okay.

**MR. KHAN:** So there's an optical filter, Your Honor. Again, just using it for illustrative purposes to show that there's an optical filter along a path between the collimating optical element and the relay.

**THE COURT:** Now, you previously called that optical, did you not, a dichroic filter?



**MR. KHAN:** I believe in this claim it's called an optical filter, and so that's why I'm using that.

**THE COURT:** Well, you might be. So is it the say thing as a dichroic filter?

**MR. KHAN:** In the written description, that filter is a dichroic filter.

**THE COURT:** And a dichroic filter is also an optical filter?

**MR. KHAN:** And a dichroic filter is one form of optical filter, yes.

**THE COURT:** Okay.

**MR. KHAN:** So it says there's a filter between the collimating optical element and the relay. And so then it says, "The filter is configured to separate the beam into a first branch and a second branch."

So the filter is going to create two branches. And so what we've done, Your Honor, is we just annotated the first and second branch.

So now the filter creates a first branch, and the claim says the optical relay element gets the first branch. So the first branch goes to the optical relay element, that's the first branch.

And then, of course, the second branch then goes the other way, right?

And it says, "The second focusing optical



element receives the second branch." And that's the second focusing optical element receiving the second branch.

And what gets the first branch? The claim tells you. The claim says the first focusing optical element gets the first branch. And that's sort of after the light has bounced off the filter, onto the relay, and now it's onto the focusing optical element.

And then the claim goes on to say, I've got semiconductor detectors behind the focusing optical elements that now are going to detect the light. And there's a first semiconductor detector associated with the first focusing optical element, and then the claim is going to say I've got a second semiconductor detector associated with the second focusing optical element.

And so what's going on in this claim, Your Honor, is the second focusing optical element is the initial in the configuration in their view. And the claim, itself, tells you that. And this is not inconsistent with the case law we pointed out to you in the brief, which is to say all that's going on is the claim is saying I've got a first group of elements associated with the first branch there.

And so I've got a first branch, and that first branch is going to be detected, focused by the



first focusing optical element, and then it's going to be focused down onto the first semiconductor detector. It's a comprising claim, Your Honor, and so, therefore, the claim on its face, the independent claims that don't preclude the notion of additional elements being configured.

And then the dependent claims actually require it. The dependent claims that are asserted in this case that they are asking you to construe.

So the specification, Your Honor, this is one of the descriptions that I was getting to earlier, which is the specification actually describes a focusing optical element as the second optical element in the path.

And so, but it's actually the third optical element in the path. So there's an instance of nonsequential use of "first" and "second" in connection in the focusing optical element.

The written description also equates the words "additional" and "second" specifically as it relates to the focusing lens. In describing the exact same element, it's 908, the same element, one time it says, hey, that's an additional focusing optical arrangement, 908. At a different time, same element, it says it's a second focusing lens, 908.

**THE COURT:** And that helps you how?

**MR. KHAN:** Because, Your Honor, the specification is equating word "second" with "additional." It's not saying second is sequential. So that's a use of the word "second" not to mean "sequential." So it's an affirmative evidence of nonsequential use of "second." And by extension, the affirmative evidence of nonsequential use of "first."

So then, we have more. What is the first, the initial focusing lens in Figure 25 called? And now this is a description of Figure 25. So before I was talking about the claims, just using Figure 25 to illustrate where the components are, but this is now the specification talking about Figure 25.

So what does Figure 25 say that initial lens is? It doesn't say "first." It doesn't say "initial." It calls it the "final," a final focusing lens, which is the opposite, Your Honor, of what they are trying to get you to construe, which is they're saying it should be the initial focusing lens.

So the initial focusing lens here is described as final. The second focusing lens is just described as additional.

And so this is exactly what I think Your Honor was sort of asking for in connection with some of



the other terms, it's the use of "first" and "second" in a nonsequential way to describe the focusing lenses, and that's exactly consistent with the claims because the claims require exactly a nonsequential order.

I think they are relying on, essentially, the original claims again, but we would submit that these claims are different. And they also, we submit, cover Figure 25 if properly construed as we are asking them to be.

The usage and numbering, we talked about that, that the MPEP says that that's not relevant. We understand Your Honor's position on that, so I'm not going to belabor it.

**THE COURT:** Well, my position on it is the Federal Circuit. I was commenting on the Eastern District of Texas case, that that's a district court case and the Federal Circuit has never opined on it, according to your cocounsel.

**MR. KHAN:** It is true. We looked for that case, Your Honor. And we didn't find --

**THE COURT:** So you did.

**MR. KHAN:** And we didn't find it. So you're right, and we understand and appreciate your view on that.

Sorry. So Cytek's construction is just



irreconcilable within the claims themselves that they are asking you to construe. And then again, you know, we think what they're -- they're going to -- they're asking for a construction, essentially, that would rule out all of the disclosed embodiments, which, as we gave you the case, Your Honor, where that's not a particularly favorable construction outcome.

**THE COURT:** All right. Now, just do me a favor. Back up, because we were only dealing with the "semiconductor detector" term here, right?

So can you just, focusing on that in Figure 25, show me where that is not sequential.

**MR. KHAN:** So I'm sorry, we were focusing on "focusing optical element" --

**THE COURT:** Wait. I got confused. Sorry. We were focusing on...

Right. And you've already done.

Then the last slide, though, just came up, "focusing semiconductor detector." We haven't dealt with that yet.

**MR. KHAN:** Correct. I would ask for that to be dealt with together with this.

**THE COURT:** Well, that's what I was just going to ask. Okay. So can you just go back and show me what the "semiconductor detector" term, though, because you



alluded to that.

**MR. KHAN:** Yeah.

**THE COURT:** The sequence of that in Figure 25. I had been focusing on the "optical element."

**MR. KHAN:** Yeah.

**THE COURT:** In the figure itself.

**MR. KHAN:** So, Your Honor, in the figure, there's no reference to "first" and "second" as applied to the semiconductor.

**THE WITNESS:** No, but just show me semiconductors.

**MR. KHAN:** Oh, oh.

**THE COURT:** In other words, you did that, what I thought was helpful...

There.

**MR. KHAN:** Yeah.

**THE COURT:** That slide, what is that?

Okay. Thank you. I just want to focus on that for a second.

**MR. KHAN:** Yes.

**THE COURT:** Okay. So the semiconductor detector, basically, it's correlated with the focusing optical element. They go together.

**MR. KHAN:** Correct, Your Honor.

**THE COURT:** All right. And you would admit

that in the Figure 25, every numbered focusing optical element has a corresponding numbered semiconductor detector; is that right?

**MR. KHAN:** In Figure 25, that's how it's laid out, correct.

**THE COURT:** Right. And you would agree that each focusing optical element and its corresponding semiconductor detector are in the same place in the sequence?

**MR. KHAN:** They are --

**THE COURT:** So, in other words, and just to be clear, so, in other words, if I have a fourth focusing optical element, it corresponds to the fourth semiconductor detector?

**MR. KHAN:** In the claim, the specification, in describing Figure 25, never uses "first" and "second" with respect to focusing optical lenses. Never uses "first" and "second" with represent to semiconductor detector.

I would submit that the structure of the claim is correct, Your Honor, as you said. In the structure of the claim, the claim is saying, I've got a first branch. That's going to go to the first focusing optical element and the first semiconductor detector.

**THE COURT:** Okay.



**MR. KHAN:** But the first branch is not the first in the...

There is a second branch, and these are coming before the first focusing optical element --

**THE COURT:** And when you say "these," just to be clear because you are using a pointer on the slide, your point is that the...

Well, first of all, I think your point would be that the final focusing optical element is sequentially the same as the...

Let me stop there. What is 907?

**MR. KHAN:** 907 is an optical relay element. So --

**THE COURT:** That's fine.

903 is either an optical filter or a dichroic filter. It is an optical filter, I guess, is easiest. That's the genus.

**MR. KHAN:** In the claim, it's described as an optical filter. I apologize, Your Honor. In these claims, yes.

**THE COURT:** All right. And then 905 and 906 are respectively, according to you, a focusing optical element and a semiconductor detector, correct?

**MR. KHAN:** Correct, Your Honor.

This is a depiction of the claim. We're only



using Figure 25 as an illustration.

In the written description, 905 is described as a final focusing lens. 906 is never described as "first." 908 is described as "another focusing optical element arrangement." 908 is also described as "a second focusing lens."

**THE COURT:** In the written description?

**MR. KHAN:** In the written description.

So I was trying to break apart the claim and the written description. This is the language of the claim, and then I can go over the written description again.

**THE COURT:** No, no. If I were to summarize the written description for you, what I think the salient points you would want to make are, that 905 is described as a final focusing optical element.

**MR. KHAN:** The exact language in the written description is "final focusing lens," yes.

**THE COURT:** Final focusing lens I should say. Okay.

And then 908 is described as a "second."

**MR. KHAN:** A second focusing lens.

**THE COURT:** Right.

**MR. KHAN:** And then also, same element, 908 is described as "another focusing optical arrangement 908."



**THE COURT:** Okay. And is there any description in the written description of what you've got here in the chart labeled the "first semiconductor detector"?

**MR. KHAN:** There is in the written description. It never uses the word "first" or "second" to refer to any of the semiconductor detectors. It just says there are a plurality of semiconductor detectors or there are additional semiconductor detectors.

In this claim, Your Honor, though --

**THE COURT:** Don't go to the claim. Just on the written description.

**MR. KHAN:** On the written description. Okay. Thank you. Sorry. Yep.

**THE COURT:** But I think it's undisputed that the focusing elements that are labeled 908, 918, 919, 920, and 921, and would you agree, they all have a corresponding semiconductor detector?

**MR. CHEN:** Correct.

**THE COURT:** Yeah. Okay. All right. Anything else?

**MR. KHAN:** No, Your Honor. In this claim we think there's only one outcome, but thank you.

**THE COURT:** "This claim," well, wait.

**MR. KHAN:** These claims.

**THE COURT:** There's five claims.

**MR. KHAN:** Yeah, 1, 3, 17, 18, 26. The claim, itself, tells you what the answer is.

**THE COURT:** All right. Okay. Thank you.

**MR. CHEN:** Thank you, Your Honor.

To answer Your Honor's questions with respect to these five Claims 1, 13, 17, 18, 26 --

**THE COURT:** Actually, do you mind keeping that slide up, please?

**MR. CHEN:** -- 26 --

**THE COURT:** Go ahead.

**MR. CHEN:** As with respect to Claims 1, 3, 17, 18, and 26, none of those claims map on to Figure 25, so that is correct. That is our position, Your Honor.

But the original claims do, as I will explain. So the --

**THE COURT:** And let's leave the original claims out there. Let's deal with the written description itself.

**MR. CHEN:** Sure. We'll focus on that first.

**THE COURT:** Do you dispute that 905 is identified as the "final focusing lens"?

**MR. CHEN:** I would like to go through that part of the specification, Your Honor, in fact.

**THE COURT:** Okay.



**MR. CHEN:** So could you go to the ELMO, please.

Thank you.

So what is that passage referring to? It needs clarification. So what this is referring to is that you start off with a collimating optical element. It captures light from a light source, and it projects a magnified image of an object near a final focusing lens 905.

If we could go to Figure 25, please.

What this is referring to is that you have an optical path here, and at the end of the optical path, there is a focusing lens. That's all that the word "final" was intended in the specification to say with respect to this path to the first semiconductor detector, you have these various optical elements, a collimating optical element, you've got a dichroic filter, you've got a band pass filter. Eventually you get to a final focusing lens which focuses the beam of light into an image, into a first image, to a first semiconductor detector.

**THE COURT:** Wait. When you say in the first image, does the written description describe the image created by the "final focusing lens" as the first image?

**MR. KHAN:** It does, Your Honor. If we go to



the next column. So we're in Column 44, bottom of Column 44.

If I could go back to the ELMO, please. Thank you.

Then we go to the next column, Column 45. 45, okay.

We then see that there is a first image near the focusing lense 905, right? And we also see that there is the concave mirror 907 that creates a second image near a second focusing lens 908.

So if we can actually go back to Figure 25, that's exactly what the specification and written description describes. This is 905, creates a first image. And then there's the optical relay element, and then it creates this second image.

**THE COURT:** Right.

**MR. CHEN:** Second focusing lens, second image.

We can go back to the ELMO.

Column 45, Lines 20 to 26.

May I continue, Your Honor?

**THE COURT:** Oh, I'm sorry. Yes, yes.

**MR. CHEN:** Thank you, yes.

I just want to emphasize that the point about the original claims being part of the specification, there's a lot of case law that supports that.



We only cited the *Crown Packaging* case, but I'm sure Your Honor knows, there's a lot of Federal Circuit case law that supports this black letter law.

There's also the *Mentor Graphics vs. Eve* case, which is 851 F.3d 1275 at 1297. That's a Federal Circuit, 2017.

There's the *Cisco Systems vs. Cirrex* case, 856 F.3d 997 1007, Federal Circuit, 2017.

And so when we look at the original claims, we see that, in fact, the original claims map onto Figure 25, so there's no exclusion of an exemplary embodiment of the patent here. It reads directly onto the claims.

Both with respect to the first focusing optical element and second focusing optical element, we've got another slide here that also highlights the first semiconductor detector, as you can see in that same element in Claim 1, and the second semiconductor detector in Claim 6. It's completely consistent with the original specification and original invention of the patents.

Unless Your Honor has any other questions, I think --

**THE COURT:** No.

So what we are going to do is we are going to

take a break. We are going to take lunch for 45 minutes. We'll come back, and we'll pick up. Does that work?

**MR. CHEN:** Thank you, Your Honor.

(Whereupon, a recess was taken.)

**THE COURT:** Please be seated.

All right. So when we left off, we were doing two terms together, right? First and second focusing optical element and semiconductor detector, right, those two terms.

All right. Let's just do this. Because we'll have enough time to finish the rest. Quick summaries of, and I want intrinsic evidence only, all right?

So start with the plaintiff and you want to point immediately to the claims and then you want to point to Figure 25 as an embodiment of the five claims, correct?

**MR. KHAN:** Correct, Your Honor. So --

**THE COURT:** And you want to really emphasize, it seems to me, in the written description the fact that the final, there's a reference in the written description to 905 in Figure 25 as being the final focusing optical lens; is that right?

**MR. KHAN:** Correct, Your Honor.



**THE COURT:** Well, let me ask you this. Are there any identifications of any part of Figure 25 in the written description that use a number, you know, second, third, first?

**MR. KHAN:** So, Your Honor, I wrote myself a sticky on this point, so I'll just go through it.

For curved mirror in connection with Figure 25, first and second, never used.

For semiconductor in connection with Figure 25, first and second, never used.

For focusing lens, first and second together never used. "Final" is used. "Second focusing lens" is used.

**THE COURT:** And another.

**MR. KHAN:** And "another focusing optical arrangement" is used, all in connection with Figure 25.

**THE COURT:** Well, hold on. So the only one that uses a number, second, right, is "optical --

**MR. KHAN:** Focusing lens 908.

**THE COURT:** Or focusing lens. Sorry.

**MR. KHAN:** 908, yep.

**THE COURT:** That's it. And that does have "second," though, in the written description.

**MR. KHAN:** And it's equating it with "another."



**THE COURT:** Right. I hear you.

**MR. KHAN:** We would say that that's the opposite of using it in a sequential way. It's using it exactly the way the Federal Circuit asks --

**THE COURT:** And "second" is at what cite of the patent?

**MR. KHAN:** It's at, Your Honor, 45, 16 to 22. And "additional focusing optical arrangement" is at 58, 2 to 9.

**THE COURT:** Okay. All right. Go ahead.

**MR. KHAN:** And then, Your Honor, I think, as we were talking about, the claims in this instance are the most powerful evidence.

**THE COURT:** Are what?

**MR. KHAN:** Are the most powerful evidence that the construction has to be nonsequential, because what the claim -- both claims, you know --

**THE COURT:** Both claims? Wait, there's five claims.

**MR. KHAN:** Five claims, sorry.

Each independent claim and its dependents create a first branch and a second branch and the first branch is after the second branch. And the first branch gives you a first focusing lens and a first semiconductor detector, and the second branch gives you



a second focusing lens and a second semiconductor detector.

And just the claim, itself, reading it, leads to the conclusion that it's nonsequential. But as we just talked about, Your Honor, here there's also written description support for nonsequential use of the numerical terms "first" and "second."

**THE COURT:** Right. But the universe of those written description references, to be clear, first of all, they all go to Figure 25.

**MR. KHAN:** Everything I said was Figure 25.

**THE COURT:** Right. And there's only one that's numerical and that's 908, which is referred to as the "second focusing lens."

**MR. KHAN:** A "second focusing lens" and "another focusing optical arrangement 908."

**THE COURT:** Right, but the second. I'm just saying --

**MR. KHAN:** Yes.

**THE COURT:** -- it's only with respect to 908.

**MR. KHAN:** Correct.

**THE COURT:** Right.

**MR. KHAN:** Yes.

**THE COURT:** Now, and it does refer to it as "another."

**MR. KHAN:** Yes.

**THE COURT:** Okay. And then the final, which is referring to 905, which the final focusing lens.

**MR. KHAN:** Yes.

**THE COURT:** That's it, though. I just want to be clear.

**MR. KHAN:** The dichroic filter is referred to as "first dichroic filter." This is the dichroic filter in Figure 25.

**THE COURT:** That's 903.

**MR. KHAN:** And that's referred to as a "first dichroic filter."

**THE COURT:** Correct.

**MR. KHAN:** And then there is another dichroic filter and that is, again, Your Honor, in our view, evidence that nonsequential use, there is another dichroic filter --

**THE COURT:** Well, actually, in Figure 25, though, it's very clear, the first dichroic filter 903, it's the first element that the ray hits coming out of the magnifying glass.

**MR. KHAN:** And I was going to go into second, which is when there is a second dichroic filter and then the use of the word "second" is equated with "additional." So --



**THE COURT:** Right. But the use of the word "second," it is sequential. Dichroic filter is sequential in Figure 25.

Are you disputing that?

**MR. KHAN:** In Figure 25 --

**THE COURT:** Yeah.

**MR. KHAN:** -- the first --

**THE COURT:** The first dichroic filter is 903, right?

**MR. KHAN:** And that's described as a second or as an additional dichroic filter. It's described as both. The same element is described as both. That is the next, sequential next after the first, yes.

**THE COURT:** Right.

**MR. KHAN:** Right.

But in our view, Your Honor, equating between second dichroic filter and additional dichroic filter, the specification doesn't. It uses the same, describes the same element. I believe it's --

**THE COURT:** Just to tell you, I don't find it persuasive that it says second and then it says but it should be an additional. I just don't find that persuasive, for what it's worth.

And I give you credit for just acknowledging, because I don't think you have a choice, that with the



dichroic filters, it has to be sequential. I mean, it just has to be.

**MR. KHAN:** And, Your Honor, I would submit to you is that the claims that talk about a first dichroic filter are different from the claims that we're looking at here.

**THE COURT:** It could be.

**MR. KHAN:** Right.

**THE COURT:** And then the claims, though, you are telling me that in 1, 3, 17, 18, and 26, there is a first branch and a second branch?

**MR. KHAN:** In the dependent claims of Claim 1 which is Claims --

**THE COURT:** Because I don't see a branch in Claim 1.

**MR. KHAN:** Yeah. It's in Claims 7 and 8, Your Honor.

**THE COURT:** Okay.

**MR. KHAN:** So they're on the screen, or it's Claim 7 and 8 that create the same structure as Claims 17 and 18.

**THE COURT:** Okay. They are dependent claims.

**MR. KHAN:** Correct, Your Honor.

And so, Your Honor, this is an instance where, essentially, Cytek is asking for an extraordinary



result. I mean, to negate all the claim language that creates the opposite of what they want in terms of sequential reading.

**THE COURT:** Okay. Well, you think it negates all the claim language? Okay.

**MR. KHAN:** It would, Your Honor, because, you know, it would, basically create a situation where the first focusing element in their view has to be the initial focusing element, but the claim, itself, tells you that it's not the initial focusing element. The second branch goes --

**THE COURT:** Where does the claim tell you it's not?

**MR. KHAN:** In the order of the claim and how the branches are being created.

**THE COURT:** Now, do me a favor. Walk we through that without referring to Figure 25 and tell me why it must.

**MR. KHAN:** I think, Your Honor, if we just abstracted, deleted Figure 25 from --

**THE COURT:** Yeah.

**MR. KHAN:** -- behind what's on Slide 25 on the screen here, that is, essentially, what the claim is talking about. Essentially the...

Yeah. So we can just, you know, mentally we

can omit Figure 25 from what we're showing.

So there's a collimating optical element and there's a filter and a relay. That's Claim 18. And it says the filter is between the relay and the collimating optical element.

And then the filter creates two branches, a first and second branch. The first branch goes to the relay. It bounces off the filter and goes to the relay. The second branch goes through the filter, and it goes to what's known as the second focusing optical element.

So the claim, itself, is saying that the second branch is before the first branch because the first branch has to travel farther, Your Honor. It has to go through the relay and then back to the next focusing lens, to what is described then as the first focusing lens.

And then, Your Honor, what I would -- I mean, it's not just negating the claim language. Of course, in our view, it's ruling out Figure 25. But we are sitting here, and they haven't pointed to you a single embodiment in the specification that this would cover.

So --

**THE COURT:** When you "that this would cover"?

**MR. KHAN:** Sorry. These claims would cover, I mean, you know, under their construction.



So under their construction there is no disclosed embodiment in the specification, the written description, that would meet their version of these claims, their construction of these claims.

**THE COURT:** All right. Let me just, is first, second focusing optical element only in Claims 1, 3, 17, 18, 26 of the '582 patent?

**MR. KHAN:** And certain other dependents, correct. Yes, Your Honor.

**THE COURT:** All dependent claims from those five claims?

**MR. KHAN:** From those five, yes.

**THE COURT:** Okay. And is first and second semiconductor detector in only those five claims and the claims that depend from them?

**MR. KHAN:** It is not, Your Honor. For that term, and we briefed this separately for exactly that reason, there is another claim, '106, Claim 1, that also has a first semiconductor detector, and that's why in our view, Your Honor, it would be appropriate to deal with the first semiconductor detector in these claims separate from the first semiconductor detector in the '106 Patent Claim 1.

Because that one, as I already acknowledged to you, Your Honor, that claim is different. That



claim, just to be clear about it, that claim just says a curved mirror, a dichroic filter, a first semiconductor detector, right?

But that claim, in candor, doesn't create the structure that this claim does by telling you exactly where the branches are going and what they are doing.

And so we think it's appropriate to treat the two first semiconductor terms separately.

Your Honor, you asked us to draw the claim without Figure 25. And this was, my colleague and I tried to draw this here. So you have a collimating optical element here. You have a filter. It creates two branches, first branch, second branch.

The second branch goes to the second focusing optical element and the second detector. The second branch goes up, the first branch goes to the relay, the filter, the first focusing element, and the first detector.

And this, Your Honor, without using Figure 25, again makes clear that it's not necessarily the initial sequential.

**THE COURT:** All right. Mr. Chen, you would say, if I'm looking at the written description, you want me to focus on Figure 25.

**MR. CHEN:** Correct.



**THE COURT:** And you want me to focus on how it's disclosed in the original claim.

**MR. CHEN:** That's correct.

**THE COURT:** And...

**MR. CHEN:** And this doesn't include all of the claim language, sorry, all of the written description that supports our position and also deals with the final focusing --

**THE COURT:** So put aside the final for a second. Let's say you persuaded me on that.

**MR. CHEN:** Okay.

**THE COURT:** That final doesn't show that they are out of sequence.

**MR. CHEN:** Yes.

**THE COURT:** Okay?

**MR. CHEN:** Right.

**THE COURT:** And then do you agree that the only numeric description of a part of the Figure 25 is 908 where it's described as a second focusing lens?

**MR. CHEN:** 908 is described as a second focusing lens, but just the next sentence in Column 45, Lines 22 --

**THE COURT:** Yeah.

**MR. CHEN:** -- to 26, and I will just go ahead and put this on the ELMO, Your Honor. This is 45, right?

**THE COURT:** Okay.

**MR. CHEN:** Discusses that there is a first image near the focusing lens 905. The first image that's associated with focusing lense 905, because that's the first focusing lens, and then there is a second image that's associated with the second focusing lens 908.

**THE COURT:** Right. But what shows that they're necessarily sequential just by that?

**MR. CHEN:** Oh, because this is talking about Figure 25. So if you go back to Figure 25, we see that. We see that 905, which creates the first image, is the first focusing lens. And 908, which creates the second image, is the second focusing lens.

Now, the other side --

**THE COURT:** Hold up. Hold up.

**MR. CHEN:** Sure.

**THE COURT:** Where does it say first focusing lens?

**MR. CHEN:** It does not say first focusing lens.

**THE COURT:** Okay. That is what threw me for a loop because I didn't see that.

**MR. CHEN:** Right, right. If you can go back to the --

**THE COURT:** But the only thing it describes as



first and second is the image.

**MR. CHEN:** That's correct.

**THE COURT:** Which we've already dealt with.

**MR. CHEN:** That's correct. But then when we get to the original claims, it makes it very clear the first image and second image --

**THE COURT:** But that's where you are really relying on the original claims.

So how about this? You are saying that Figure 25 is not read on by any of the five claims.

**MR. CHEN:** That's right.

**THE COURT:** Correct?

**MR. CHEN:** They came later. They're trying to write claims onto products.

**THE COURT:** Okay.

**MR. CHEN:** Uh-huh.

**THE COURT:** Now, and you're pointing to solely Figure 25 and the description that accompanies it in the written description for me to interpret these claim terms that are in those five asserted claims, right?

**MR. CHEN:** Plus the original claims, which --

**THE COURT:** Okay.

**MR. CHEN:** -- which are part of the original specification.

**THE COURT:** All right.



**MR. CHEN:** And there's also Figure 25A as well, which does show a consequencing of 905, 908, 918, 919, 920, 921.

**THE COURT:** And that's fair, and I think that's an accurate description of Figure 25A.

**MR. CHEN:** Correct.

**THE COURT:** But is there any disclosure on the written description that the five claims do read on that discloses a sequencing?

**MR. CHEN:** I think those claims were drafted much later, and I'm not sure there's written description support for them.

**THE COURT:** But that's a different question.

**MR. CHEN:** So --

**THE COURT:** And I hear you. That could be.

**MR. CHEN:** Uh-huh.

**THE COURT:** But, see, where I'm trying to figure out right now is --

**MR. CHEN:** Yeah.

**THE COURT:** -- I'm trying to figure out how you deal with the claim language --

**MR. CHEN:** Yeah.

**THE COURT:** -- right? That's the problem. And so let's just say, for example, let's just assume I totally agree with your reading of Figure 25. I totally



agree with 25A. And I agree with you that the asserted claims don't read on --

**MR. CHEN:** Yes.

**THE COURT:** -- Figure 25 or 25A.

**MR. CHEN:** Right.

**THE COURT:** I've still got these claims I've got to interpret.

**MR. CHEN:** Right, right. And I completely understand that. And with respect to the independent claims, "first" and "second" are consistent with positional significance and sequence.

The only claims that they point you to are nonasserted Claims 7 and 8 that have to do with the branches. And we talked about that at the last claim construction hearing where we could put up their slides, and we could actually, if you wouldn't mind giving me the figure that you drew, I would be happy to use that on the ELMO.

**THE COURT:** It's under the ELMO, I think.

**MR. CHEN:** Oh. I think you guys took it away. Do you guys have the figure that he drew?

**MR. KHAN:** It's on the screen. Sorry.

**MR. CHEN:** Oh. Not that one. The one that you physically drew. If I could borrow that, I would appreciate that, Counsel.

**MR. DENNHARDT:** Oh, sorry.

**THE COURT:** This is the branching.

**MR. CHEN:** Yeah, this is the branching, right? And we talked about how this is the same juncture. So it doesn't matter if you call this one the first branch or the second branch. This claim doesn't map onto this figure, which is why it's --

**THE COURT:** But you're back on the figure --

**MR. CHEN:** -- it's very frustrating, which is why I want to use their figure. Because if I use their figure --

You guys don't have it anymore?

**THE COURT:** You got rid of the drawing?

**MR. CHEN:** Yeah. I just don't see it.

**THE COURT:** Are you sure it's not on the ELMO?

**MR. DENNHARDT:** No, no. It was in the front of this other one. I'm sorry.

**MR. CHEN:** Okay. Thank you.

**THE COURT:** No problem. It was such masterful artwork, we've got to take advantage of it.

**MR. CHEN:** Exactly. It's a Picasso.

So here, right, even the way they drew it, there's a branch here. It doesn't really matter if this is the first branch, right? And this is the second branch.



But, again, this is all about --

**THE COURT:** But it does matter because what they are saying is the second branch could come before sequentially the first branch.

**MR. CHEN:** Neither comes before the other because this isn't the...

It is not about the same optical path of light. At this point, they are branching off.

**THE COURT:** Yeah.

**MR. CHEN:** They are branching off. And so --

**THE COURT:** They're either simultaneous or one is ahead of the other in time sequence.

**MR. CHEN:** They're branching off so they're simultaneous. So at this juncture right here --

**THE COURT:** Okay.

**MR. CHEN:** -- this could be the first branch or this could be the second branch. They decided to call this one, based on the other claim terms, the first branch.

**THE COURT:** Yeah.

**MR. CHEN:** Right? And because this is not Figure 25 anymore, the way they drew it actually is consistent with the way that we are viewing things, which this is the first branch, or this is the first detector or this is the second detector, right?



And then there could be a third detector and there could be a fourth detector. But the point is "branch" isn't recited in any of the asserted claims. "Branch" is not recited in any of the asserted claims.

**THE COURT:** Okay. But then --

**MR. CHEN:** I'm not sure why they're trying to use that.

**THE COURT:** So then go to the asserted claims.

**MR. CHEN:** Yes. The asserted claims.

**THE COURT:** Hold on a second. Actually, wait a second. I am a little confused here. I thought I already covered this with them.

I asked you, Mr. Khan, is first and second focusing optical element only in Claims 1, 3, 17, 18, 26 of the '582 patent and you said and certain other dependent claims as well, right? Then we did the same thing for the first and second semiconductor detector.

**MR. KHAN:** So the asserted claim, each of the five claims, 1, 3, 17, 18, 26, are asserted.

**THE COURT:** Okay.

**MR. KHAN:** The other dependent claims that are of greatest importance that I was referring to in my answer to you, Judge, was Claim 7 and 8 that depend from Claim 1.

**THE COURT:** And they're asserted?



**MR. KHAN:** They're not asserted, but they're dependent claims that inform the scope of Claim 1. And the reason they do is because Claims 7 and 8 mirror almost exactly the structure of Claims 17 and 18, which are asserted. So we submit, Your Honor, that Claim 1, yeah, and --

**THE COURT:** So bottom line, let's assume...

Frankly, you shouldn't assume it. I think your best argument are Claims 7 and 8, right?

**MR. KHAN:** Claims 7 and 8 and Claims 17 and 18, which are also asserted. And 17 and 18 use the word "branch," and they create the branches in exactly the way we've been talking about.

**THE COURT:** All right. But and you're saying Claims 17 and 18 are asserted?

**MR. KHAN:** Correct, Your Honor.

**THE COURT:** All right. Why don't you then, Mr. Chen, look at Claims 17 and 18.

I do think this is a really bizzaro world, right, we're living in where there is real dependence on unasserted claims like Claim 12.

**MR. CHEN:** Right. Okay. So --

**THE COURT:** So 17.

**MR. CHEN:** Seventeen depends on Claim 14. So none of the independent claim --

**THE COURT:** Hold on a second. And 14 is an independent claim.

**MR. CHEN:** Right. So none of the --

**THE COURT:** So wait. I'm sorry to interrupt you. Sorry.

But, Mr. Khan, I thought you told me that all the claims that use focusing, first and second focusing optical element are either the five that are identified in the slide or depend from them.

So now you're telling me it's not limited to that?

Oh, 17 and 18 are listed there. I apologize. Totally apologize.

**MR. KHAN:** They are, Your Honor. And Claim 14 doesn't recite these terms.

**THE COURT:** Okay. I see. Thank you.

All right. So let's just see. Mr. Chen, I think you are going to tell me you don't see anything in Claim 17 which would require sequencing, right? Because there's no second.

**MR. CHEN:** There's no second there.

**THE COURT:** Right.

**MR. CHEN:** That's correct, Your Honor. There is a second in Claim 18.

**THE COURT:** Eighteen?



**MR. CHEN:** Yes.

And there is -- yeah, the whole point here is that they should be in sequence, not a first one and then the second one can be the third one, fifth one. And even their drawing supports that, where there is a first...

Because Claim 18 does recite a first branch and a second branch, but the point is the focusing optical elements are in sequence. One is the initial, that's the first, and the second one is sequential.

**THE COURT:** All right. All right. Can we just have clarification. Which claims use the term...

Which asserted claims? Because I am only interpreting asserted claims. Okay?

Oh, is that a problem, Mr. Khan?

**MR. KHAN:** Your Honor, the asserted claims would be interpreted in light of their dependence.

In this case, what Cytek is asking with respect to Claim 1 would negate claim language in the dependent claims. So in any event, happy to address --

**THE COURT:** Well, let's start with this: What asserted claims use the phrase or use the term "second focusing optical element"?

**MR. CHEN:** Claim 18, Your Honor.

**THE COURT:** Any other claim?



**MR. KHAN:** Twenty-six.

**MR. CHEN:** That's correct.

**THE COURT:** Does Claim 26 depend from --

**MR. KHAN:** Oh, apologize, Your Honor. I misread that. It does not. It does not use that term.

**MR. CHEN:** That's right, yes.

**THE COURT:** So then other than Claim 18, are there any other asserted claims that use the term "second focusing optical element"?

**MR. CHEN:** No. The rest of the asserted claims just use "first focusing optical element."

**THE COURT:** Okay. Are there any terms that use...

Are there any claims other than Claim 18 -- well, strike that again and start over.

First of all, for the record, Mr. Khan, do you disagree that the only claim, the only claim that's been asserted in this case that uses the term "second focusing optical element" is Claim 18 of the '582 patent?

**MR. KHAN:** I'm just checking, Your Honor.

**THE COURT:** Thank you.

**MR. KHAN:** If you could give me a second.

**THE COURT:** No problem.

**MR. KHAN:** Appreciate it.



I believe that's correct.

**THE COURT:** Okay. What are the asserted claims that use the term"second semiconductor detector"?

**MR. CHEN:** Claim 18, Your Honor.

**THE COURT:** Anything else?

**MR. CHEN:** I do not believe so. Oh, wait. For the '582? For the --

**THE COURT:** We'll get the '106 in a second.

**MR. CHEN:** Right. Yes.

**THE COURT:** But just for the '582.

**MR. KHAN:** In the '582, I believe that's also correct, Your Honor. In the asserted claims of the '582 patent, it's Claim 18.

**THE COURT:** Okay. Are there any other asserted claims? Now, I think we have Claim 1 of the '106 patent; is that right?

**MR. KHAN:** Claim 1 of the '106 Patent, yes, Your Honor.

**THE COURT:** And either of those two, the two terms we're talking about, does it use it?

**MR. KHAN:** The second terms are not in Claim 1 of the '106 Patent.

**THE COURT:** There are no second terms?

**MR. KHAN:** It's just first terms, not second.

**THE COURT:** Yep. Okay.

So are there any other asserted claims, period, that use either the term "second focusing optical element" or "second semiconductor detector" other than Claim 18 of the '582 Patent?

**MR. KHAN:** If we are limiting ourselves to asserted claims, that's it.

**MR. CHEN:** Claim 5, Your Honor, uses a second semiconductor detector of the '106.

**THE COURT:** The '106? Okay.

**MR. KHAN:** Claim 5 is not asserted.

**THE COURT:** Claim 5 is not asserted, so I don't have to construe it.

**MR. KHAN:** I think what Mr. Chen --

**THE COURT:** Look, it's really simple. I do want to kind of move on.

I just want to know what the universe is of asserted claims that use the term either "second focusing optical element" or "second semiconductor detector."

And it sounds like right now the entire universe is Claim 18 of the '582 Patent.

**MR. KHAN:** For asserted claims, yes.

**THE COURT:** Okay. And Mr. Chen, you agree?

**MR. CHEN:** Correct, Your Honor.

**THE COURT:** All right. I don't need argument



anymore.

**MR. KHAN:** Okay.

**THE COURT:** Here's what I'm going to do. I don't believe that it's required to be sequential in Claim 18. I read Claim 18. I don't see anything in the claim language that requires sequencing.

I think Figure 25 requires sequencing. The defendant says Claim 18 does not read on Figure 25, and I think Mr. Khan's also admitted it doesn't read on Figure 25.

**MR. KHAN:** It does.

**THE COURT:** Oh, you say it does?

**MR. KHAN:** Under our construction, it would appropriately encompass Figure 25, yes.

**THE COURT:** Okay. Well, I don't have to decide that. I don't have to decide that because the main thing is, you say it doesn't.

**MR. CHEN:** Uh-huh.

**THE COURT:** And that's what really I find most informative, right? At the end of the day, I look to *Phillips*, and I look to whether or not the terms in the claim that I am asked to construe, I am asked to look at what they mean. I read the claim, but I also am informed by the written description. And if the claim actually read on Figure 25, I would be informed, and I'd say it's



got to be sequenced. But the defendant says it doesn't read on it, and then I don't see why I'd be informed by Figure 25. Okay?

**MR. KHAN:** Thank you, Your Honor.

**THE COURT:** All right. Next.

So understand I ruled that, essentially, I am agreeing with the plaintiff on both of those terms, right, "second focusing optical element" and "second conductor detector" in that there doesn't have to be sequencing.

So what I'm saying is, essentially, I don't agree with the defendant that the "second focusing optical element" or "second semiconductor detector" in Claim 18 must follow immediately after "first focusing optical element" or "first semiconductor detector" without any intervening optical element or semiconductor detector.

**MR. CHEN:** Just with respect to the asserted claim. But could I actually just make one point, Your Honor?

**THE COURT:** Yeah, you can make a point.

**MR. CHEN:** Okay. Can I get that --

**THE COURT:** Oh, no, no. Don't make another argument. I've got to move on. So sorry.

**MR. CHEN:** Okay. Just based on the other



claim language, Your Honor, it is the second focusing lens that's receiving the second branch. They are branching off at that juncture.

**THE COURT:** Yeah, I just don't buy that. Okay. Then I will state further for the record, then, why.

First of all, I've read the claim. I don't see anything in the claim that requires sequencing. Second, I actually found the drawing probative.

And Mr. Chen, you won't like this, and I think you are wonderful advocate, but you won't like it, your inability to persuade me that that diagram shows sequencing. I don't think it does. I think it could show simultaneous transmission on branches, Number 1.

And then, Number 2, it doesn't tell you which comes first. And Mr. Chen admitted that there also could be a third and fourth. And the problem is that the drawing, just like the claim language itself, doesn't mandate which branch comes first or second. It just labels them that way.

And the fact is, I think what was really telling is when Mr. Chen looked at the branches, it's like he told me, well, you can call the second one the first or you can call the first one the second. That goes to the point. That's the whole point.

All right. Sorry it took me so long. Next.

So I think, are the only things left the means-plus-function or there are any more first or second left?

**MR. CHEN:** I believe that's correct, Your Honor, just "optical element," "collecting optical element," and "collimating optical element."

**THE COURT:** Yeah. So the three means-plus-function terms.

**MR. KHAN:** Yes, Your Honor.

**THE COURT:** Okay. All right. Let's hear then on them.

And then, which one? Do you think there's a benefit to picking one first?

**MR. CHEN:** I think it would be good to start with "optical element."

**THE COURT:** Okay. We'll do that.

**MR. KHAN:** So on this one, Your Honor, Judge, you held that the corresponding structure for this term is 408 and/or 413, and you asked for additional briefing on whether it should be "and" or whether it should be "or."

And I think, perhaps, the defendant went a little bit beyond that in their briefing and also talked about whether there was linking structure.



With the Court's permission, maybe I can just address the corresponding structure issue first. And if you would like, whether it's "and" or "or," and then if you would like argument on the linking issue, I can address that as well.

**THE COURT:** Okay. That sounds good.

**MR. KHAN:** And my apologies again, Your Honor, for the missing citations on Page 28. We have them here, and we think we are going to be able to cover them in detail.

**THE COURT:** Okay.

**MR. KHAN:** So, Your Honor, the claim term is "optical element configured to detect scattered light." The claim does not say all scattered light. It does not say all forward and scattered light. It just says scattered light. And so the specification is pretty clear that you can have one or more detectors.

At Column 27, Lines 22 to 27, it says, "The optical sensing subsystem includes one or more detectors. Such detectors may include forward scatter FSC, side scatter SSC," and then it also refers to a fluorescence detector. We omitted that but it also says that in the specification so I just wanted to make that clear.

And then in talking about element 408, the



408 is the subject of its own figure, Figure 37. It's standalone figure to talk about 408.

And it says detector 408 detects FSC, which, as we discussed, is forward scattered light, and remaining light into the detector 408.

And that language, of course, is the linking language that I think Your Honor also identified during the last hearing that links this to the claim function.

There's a separate figure, entirely separate figure that refers to a second light detection system. And the second light detection system is in 413. And it says you may have a second light detection system 413, different figure from when it was talking about 408 alone, different figure.

Now it says you can have 413 in accordance with some embodiments of the present disclosure. So you can have a second light detection system 413 in accordance with some embodiments.

And then optional language to say the FSC may be detected by 408. Side scatter may be detected by second light detection system 413.

So, Your Honor, we think the specification is pretty clear that both detectors are not required. You have the overview of the flow cytometer and the discussions in the background saying it can be one or



more detectors, FS, forward scatter, or side scatter.

You have a discussion of Figure 37 that's very focused on element 408, and then you have a separate figure that talks about elements 408 and 413 together and 413 is described as a, quote, "second light detection system" separate from 408, and throughout the specification uses optional language of the kind that the Federal Circuit has said would allow -- would require --

**THE COURT:** Wait, what do you mean the "optional language"? What are you referring to?

**MR. KHAN:** Sorry. The "may include." You know, so if the specification says that the system may include 408, that suggests that the corresponding structure for "optical element configured to detect" can be either 408 or 413. That's all I'm saying. So just referring to the "may" language that's often used in describing 408 and 413.

On the linking issue --

**THE COURT:** Well, let's just do this. You think they are two separate issues, right? There's either the "and/or" and then you want to deal...

I thought you said to me let's just deal with the is it an "or" or an "and," 408 and 413.

**MR. KHAN:** We didn't brief the linking issue

because I thought, Judge, your order was pretty clear that you only wanted to hear briefing or get briefing on the "and/or" issue and brief that. We didn't brief the linking issue.

**THE COURT:** Yeah, okay. So let me hear from them on the "and/or."

**MR. KHAN:** Okay.

**MR. CHEN:** Thank you, Your Honor.

Let me start with the claim language. The claim language recites, "An optical element configured to detect scattered light emitted by the particle in the flow channel and illuminated by a light source." It recites "to detect scattered light," and just like the term "image" that --

**THE COURT:** Hold up. Hold up. Hold up. Before you go any further, I want to make sure.

This is where I got really confused with the briefing. So this is Claim 13. You all agree 13 is asserted, right?

**MR. CHEN:** That's correct, Your Honor.

**THE COURT:** I just want to make sure. Because you put 16, though, and I didn't understand what you were doing about Claim 16.

**MR. CHEN:** They dropped Claims 17 and 18 --

**THE COURT:** Yeah.



**MR. CHEN:** -- and they didn't tell us that before the briefing.

**THE COURT:** Well, that's fine.

**MR. CHEN:** And so 16 is the claim that 17 depends on.

**THE COURT:** I see. Okay. All right.

**MR. KHAN:** And Claim 16 was not asserted.

**THE COURT:** Okay. Great. So then it's true, all I have to worry about is Claim 13?

**MR. CHEN:** Correct.

**THE COURT:** Okay. Great. All right. Sorry. Thanks.

**MR. CHEN:** Yeah, so here is the claim language.

**THE COURT:** Yep.

**MR. CHEN:** The optical element has to detect scattered light. And just like "image" is broader, "scattered light" covers both forward scattered light and side scattered light.

And when we actually look at the other claims in the '443 Patent --

And switch the ELMO, please.

-- you can see that with respect to Claim 13, the language is "to detect scattered light," but with respect to a nonasserted claim that also depends on



independent Claim 1, there's a recitation of "side scattered detectors."

We can go back to the slides, please.

And so our first position is that the claims recite optical element. I know we discussed this at the first *Markman* hearing, Your Honor, but a detector is not an optical element.

Next slide, please.

The detector is not an optical element. This is what they had originally pointed to as the optical element. This composite objective 60, it does not perform the function of detecting, and so we believe it is indefinite because there's no optical element that performs the function of the detecting.

Now, next slide, please.

**THE COURT:** Wait. I'm sorry. But see, now, I am really just narrowly focused on: Is it 408 or 413? Or is it 408 and 413?

I can't keep revisiting stuff. You have to understand, I have 300 patent cases. I can't do that.

**MR. CHEN:** Understood.

**THE COURT:** I can't remember stuff. You know, I dealt with a different patent case yesterday.

So do me a favor, now you're off on indefiniteness, so I don't know. Now I'm thinking,



like, okay, what am I missing?

**MR. CHEN:** Understood.

**THE COURT:** You have taken me somewhere where I don't know where I am going.

**MR. CHEN:** I wasn't you sure that issue was decided or not but I'm happy to go --

**THE COURT:** When you say "that issue," I thought it was really clear I decided --

**MR. CHEN:** Means-plus-function.

**THE COURT:** -- means-plus-function.

**MR. CHEN:** Right.

**THE COURT:** And I decided that structure would have to be found in --

**MR. CHEN:** The specification.

**THE COURT:** It has to be.

**MR. CHEN:** Absolutely.

**THE COURT:** And now, and I said the patent might be rendered indefinite because... Or the claim might be, right, if it doesn't show structure.

**MR. CHEN:** That's fine.

**THE COURT:** But it appeared that 408 and 413 detect light.

**MR. CHEN:** That is correct that they're detectors and they're not optical elements. That's the point that I wanted to make.

**THE COURT:** But I found that, at your request, "optical element" is a means-plus-function term. It's at nonce term.

**MR. CHEN:** Correct. Element is a nonce term and --

**THE COURT:** Element is.

**MR. CHEN:** Understood. I am happy to move on and explain why, consistent with the claim language being broader to capture both forward scattered light and side scattered light, that both detectors, it's an "and," both detectors are required.

**THE COURT:** Okay.

**MR. CHEN:** The 408 forward scatter detector and the 413 side scatter detector, both of them are required to cover the full scope of the claim language, which is to detect scattered light.

Doesn't say detect forward scattered light. Doesn't say detect side scattered light. They could have claimed that.

They didn't. They claimed something broader, which requires that --

**THE COURT:** Well, when you say "broader," is it broader or narrower? I mean, in other words, it could be, I mean, as an English person --

**MR. CHEN:** Yes.



**THE COURT:** -- you know, like, as opposed to a science person, you know, just reading the grammar, right, that to detect scattered light means I detect two rays from a side scatter or I detect two or three rays from a forward scatter.

In other words, if I do it just purely on the language and, again, not scientific, there may be --

**MR. CHEN:** Right.

**THE COURT:** -- that a POSA comes in and says something different. But just from an English point of view, to detect scattered light just means some portion at least of the light that's scattered.

**MR. CHEN:** Uh-huh.

**THE COURT:** So why is it broader? It's narrower.

**MR. CHEN:** It's broader because when the laser hits the cells in the flow cell, light scatters in a variety of directions. We talked about this at the first *Markman* hearing.

**THE COURT:** Right.

**MR. CHEN:** And in order to cover the detection of the scattered light, you need both a forward scatter detector and side scatter detector.

And they actually have different functions. A forward scatter detector is usually used to measure



data with respect to size of particles, whereas a side scatter detector is usually used to detect morphology of the particles in the flow cell.

**THE COURT:** Let me ask you this. Is this thing, the box in the middle is the WMD? What is that box in the middle called?

**MR. CHEN:** Oh, no, this is before the WDM.

**THE COURT:** Sorry, WDM. What's the box, Figure 38?

**MR. CHEN:** Yeah, so the 60 in Figure 38 is the composite microscope objective.

**THE COURT:** Okay.

**MR. CHEN:** We are going to be talking about that more with respect to the "collecting optical element" term, Your Honor.

**THE COURT:** All right. Now, the light gets in there.

**MR. CHEN:** That's right.

**THE COURT:** What's it made out of?

**MR. CHEN:** Light is usually laser light.

**THE COURT:** The light is. What's the 60? What 60 made out of?

**MR. CHEN:** Oh, 60 is usually, it can either be glass or plastic. And then the flow cell is 409. And that's where the cells will enter. And then the light



will irradiate the cells. And the light will both scatter as well as fluoresce. The cells will fluoresce light. And the fluoresce --

**THE COURT:** Would you agree that -- sorry. Go ahead.

**MR. CHEN:** Sorry.

The fluorescent light will go to the WDM. The scattered light is being detected by 408 and 413.

**THE COURT:** Okay. Now, 60 --

**MR. CHEN:** Sixty.

**THE COURT:** -- is it within a box, a metal box or, like, what is it in?

**MR. CHEN:** Yeah. It's within, like, a bigger flow cytometer machine. It's not part of the WDM. It's not part of the WDM.

You have the WDM that receives the fluorescent light through an optical fiber.

If we can actually put up Figure 31, which is, I think, one of the very first slides from Slide 3.

So you see 60 here as well. It doesn't show the forward scatter or side scatter detectors on this figure. But it does show the 60, which is the composite microscope objective or the collecting optical element.

And so light will scatter after it hits the cells in the flow cell. And the cells will also

fluoresce. And it's the fluorescent light that eventually gets to the optical fiber 852.

**THE COURT:** Through the cable.

**MR. CHEN:** Through the cable, that's right, optical fiber cable to the WDM 90. And then 90 is described in more detail in Figure 25.

And so going back to the --

**THE COURT:** Just give me a second.

**MR. CHEN:** Sure.

**THE COURT:** Okay. Now, you were about to say something, and I asked you to wait a second so I could read.

**MR. CHEN:** No. I was just reiterating the point that the claim language says "detect scattered light, which includes both forward scatter and side scattered light." And that's why you need both detector 408 and detection system 413.

And that's also supported by Federal Circuit, as well as Delaware case law, that says if you have, basically, multiple functions, or here, "a broader claim that covers both forward scattered and side scattered light."

Similar to the term "image," right? The other side is arguing that "image" is broader; it covers both real images and virtual images.



Same thing here, "scattered light." And they have other claims where they use the words "side scattered" rather than "scattered."

**THE COURT:** All right. I don't find that argument particularly compelling. Now, I'm afraid I might be missing something, so that's why I was asking questions about the structure of these machines.

**MR. CHEN:** Yes.

**THE COURT:** For instance, I asked you: Was 60, the box, what's it made out of? I thought you might tell me, I don't know, it was titanium; it's sealed so no light can escape from it except by a fiber cable or, you know, something, right?

**MR. CHEN:** Yes.

**THE COURT:** But didn't say that. You said it's glass.

**MR. CHEN:** Yeah, that's right.

**THE COURT:** All right. And I always appreciate your honesty.

**MR. CHEN:** Uh-huh.

**THE COURT:** So, but it sounds to me like it's understood that not all the light that's being emitted, whether it's on the side or whether it's forward, is being captured by 408 and 413.

**MR. CHEN:** Not all, that's correct, Your



Honor. But in this particular space, there's forward scattered detectors and side scattered detectors. That's common in this industry because they capture different things.

**THE COURT:** Right. But they don't capture everything.

**MR. CHEN:** They don't capture everything, but they perform different functions. One is to capture, basically, data with respect to size. That's -- I believe that's forward scatter, but my expert will correct me if I have the two things reversed.

And the side scatter detector is used to detect data with respect to the morphology of the cells and particles going through the flow cytometer.

**THE COURT:** All right. But, for instance, the side detecters, they're not capturing every ray or particle of light emitted on the side.

**MR. CHEN:** They don't have to because they will already be able to perform their function of telling us the morphology data that we want to have from the sample of cells.

Just similarly, the forward scatter will tell us the information we want about the size so we don't have to capture every single ray.

**THE COURT:** I got it. That's good.



**MR. CHEN:** Okay.

**THE COURT:** That's all I wanted to know.

**MR. CHEN:** Understood.

**THE COURT:** They don't have to capture everything. I thought... the nature of my questions was to disclose... for me to discover, wow, is it anticipated that all the light that's being emitted is being captured? And the answer to that this clearly, "No."

**MR. CHEN:** Right. No.

**THE COURT:** Okay.

**MR. CHEN:** That's correct, Your Honor.

**THE COURT:** Now, Claim 13 doesn't depend in any way from Claim 5, correct?

**MR. CHEN:** That's correct, Your Honor. They both depend on Claim 1.

**THE COURT:** Okay. All right. Then I'm going to rule that the structure for Claim 13 of the '443 Patent is 408 or 413.

**MR. CHEN:** Okay.

**THE COURT:** Okay? Because I actually don't think claim, that the detecting scattered light is broader than what's anticipated as being detected by side scattered detectors, for instance, in Claim 5 of the patent. To the contrary, as I've previously articulated, to me, it's much narrower.

It's basically, to read on this element of Claim 13, you would have to have an optical element that is configured to detect some scattered light. Doesn't have to be all of the scattered light. And that scattered light could be forward, it could be side light, and it doesn't have to be, in its entirety, whether it's forward or side.

Okay. So that takes care of that claim.

What's the next claim?

**MR. CHEN:** "Collecting optical element." Would you like me to go first, Your Honor?

**THE COURT:** Well, wait a second. See, when you jump to "collecting"...

Is this Claim 18 of the '443?

**MR. KHAN:** Your Honor --

**MR. CHEN:** Claim 1 and 13 of the '106, Your Honor.

**THE COURT:** Okay. Let's just hold up.

**MR. KHAN:** I was just going put on the record, Your Honor, there are no other asserted claims with the language "optical element configured to detect." So I think we can put that one to bed.

**THE COURT:** I think we all agree on that.

**MR. CHEN:** Yes.

**THE COURT:** We all agree on that.



Now, the question is, though, an optical element that does something besides merely detecting.

**MR. CHEN:** Yes.

**THE COURT:** Right. And so for that, what do we have?

**MR. CHEN:** "Collecting optical element," Your Honor, which is Claims 1 and 13 of the '106 Patent.

**THE COURT:** Okay. But the only thing I'm at a loss for is, what about claim... oh, because Claim 18 is gone from the '443.

**MR. CHEN:** They dropped them. That's correct.

**MR. KHAN:** That's what I was --

**THE COURT:** Thank you.

**MR. CHEN:** They dropped them because -- yes.

**THE COURT:** Yes. I got it.

All right. Thank you.

All right. So now, go ahead.

**MR. CHEN:** Collecting optical element.

**THE COURT:** Yep.

**MR. CHEN:** Would you like me to go first?

**THE COURT:** Yeah, why don't you.

**MR. CHEN:** Okay.

**THE COURT:** Change things around here.

We've got two terms, right?

**MR. CHEN:** Yes.



**THE COURT:** All right.

**MR. CHEN:** Could we go to Slide 69, please?

So the parties agree on the claimed function here, which is to collect and focus fluorescent light emitted by a particle illuminated by the light source, such that the fluorescent light leaving the collecting optical element converges.

So that's agreed upon. There's no dispute that this is the claimed function.

**THE COURT:** Yep.

**MR. CHEN:** And so there is no structure for collecting optical element. Collecting optical element is only found in the claims. It's not even in the written description at all. It is subject to means-plus-function.

And when we look to see what in the specification performs the function, it always requires a concave mirror and an aberration corrector plate.

And you need that in order to make the light converge, you need a concave mirror, 601, in order to make the light converge.

So using this -- let's see -- this top figure here, this looks, hopefully, familiar at this point. It's similar to what we looked at previously when we were looking at the side scatter detectors, Your Honor.



**THE COURT:** Okay.

**MR. CHEN:** Right.

But now we're talking about fluorescent light. And so what happens is, light will come in, you will hit the flow cell, there's scattering that happens, but then there's also fluorescing.

And that fluorescent light will be gathered by the concave mirror and then converged. And what the aberration corrector plate does, it fixes aberrations in the light so that you can properly have converging light.

And that's why this is recited throughout the patent in various embodiments. Every single embodiment requires a concave mirror and an aberration corrector plate.

And, in fact, when we look at the original claims of the patent, we see that they actually recited that the composite microscope objective includes a mirror and an aberration corrector plate.

There's nothing in the original claims where you have a composite microscope objective that is -- that's off by itself. That doesn't further, then, specify that you need to have a spherical mirror and an aberration corrector plate in order to perform the claimed function.

As Your Honor knows, you need to have structure that's sufficient for performing the claim function. A microscope objective, by itself, is not sufficient to perform the claim function of converging light.

And here's an example. This is extrinsic evidence, and also discussed by our expert, Dr. Ilkov. And...

The laser is not showing up very well. Can I get the other one, please? Thank you.

So here's the objects of the lights flowing in this direction, right? This direction, your eyeball is up here and looking through the microscope objective. And, basically, light here, which is diverging, actually gets collimated in this objective. So this is a collimating objective. It's not an objective that converges light.

That's why you always need a concave mirror and an aberration corrector plate.

**THE COURT:** All right. Just give me a break here.

Again, and I deferred to you about whether you're prejudiced and I would construe this, because they didn't cover this, right?

**MR. CHEN:** Right.



**THE COURT:** So I didn't read it.

Let me just step back, though.

**MR. CHEN:** Sure.

**THE COURT:** My limited experience with means-plus-function is, you know, the norm is, you battle over whether it's means-plus-function, then you battle over whether there's a specific embodiment disclosed in the written description --

**MR. CHEN:** That's right.

**THE COURT:** -- that performs the function.

**MR. CHEN:** Correct.

**THE COURT:** So you're saying there isn't?

**MR. CHEN:** Oh, there is for this term, there is.

**THE COURT:** Well, it sounds like you're saying there's some combination of disclosures in the patent that do it. That's what, kind of, is throwing me for a little bit of a loop here. And I'm...

**MR. CHEN:** I think I understand --

**THE COURT:** Does the law permit that?

**MR. CHEN:** I think I understand what Your Honor is asking, but, of course, please let me know if maybe I'm not understanding you correctly.

So the first issue is: Does the term "collecting optical element" by itself connote



sufficient structure for performing the recited function?

**THE COURT:** Right.

**MR. CHEN:** Which, we all agree on, is the collecting and focusing and converging the light, right?

And our position is, no. And, in fact, the written description doesn't even use the term "collecting optical element" at all.

That said, the written description does say, in multiple embodiments, that a concave mirror and aberration corrector plate perform this function of collecting the light and converging it.

And that is shown in various figures and various written description disclosures, and always involves a concave mirror and an aberration corrector plate.

**THE COURT:** Can you show me a specific example where there is this disclosure of both of these things --

**MR. CHEN:** Yes.

**THE COURT:** -- acting together to perform the claimed function?

**MR. CHEN:** Absolutely.

**THE COURT:** As opposed to, I'm looking at your slide --

**MR. CHEN:** Right.



**THE COURT:** -- and it seems to be pulling together different things in the written description to do this.

**MR. CHEN:** Absolutely. And this is also described in our briefing, but I do have some of these places memorized.

And so the first place is on Column 3. There is a discussion of the composite microscope objective, includes a concave mirror and an aberration compensation plate. We call it a corrector plate in other places. So that's one area.

**THE COURT:** Well, no, no, no. That's where it discloses an exemplary embodiment.

**MR. CHEN:** Uh-huh.

**THE COURT:** But where does it say here that that composite microscope objective collects and focuses fluorescent light emitted by a particle illuminated by the light source such that the fluorescent light leaving the collecting optical element converges?

**MR. CHEN:** Understood.

**THE COURT:** You're just saying that's applying what you're... like, basically, POSA knowledge?

**MR. CHEN:** Absolutely, Your Honor. Yeah.

**THE COURT:** Okay.

**MR. CHEN:** I understand what you're asking.

And let me just get to places that discuss that.

It's cited in our briefing.

Let's go to our original briefing. That's probably the best place.

Column 34, Lines 43 through 55. Column 34.

Talking about this right here?

Forty-eight onwards. "Figure 9A" --

**THE COURT:** Yeah, so Figure 9A. Okay.

**MR. CHEN:** -- "depicts the results of ray tracing from the embodiment of a composite microscope objective, 60, illustrated in Figure 8. As depicted in Figure 9A, scattered and fluorescence emissions from three spatially separated locations in the flow channel near the center of cuvette, 603, may initially propagate for back surface mirror, 601, and pass first through the cuvette, 603, to be internally reflected back to the back surface mirror, 601, then pass through the cuvette, subsequently pass through the aspheric corrector plate, 602, and finally forms three distinct images near an image plane, 605."

So that's just one place. And there's multiple places.

**THE COURT:** Well, hold up. So then the structure described there consists of 601, 602, 603, 604, and 605.



**MR. CHEN:** Correct.

**THE COURT:** Okay. And is that sufficient structure to accomplish, then, that by itself, those five parts, 601 through 605, you're saying together are sufficient structure?

**MR. CHEN:** That's correct.

There's various embodiments, some with slightly different structures. All of them share the common components of a concave mirror and an aberration corrector plate.

And so, as you can see, our construction has four different proposed structures consistent with the specification. I'll put it up here, Your Honor. And they each have a concave mirror and an aberration corrector plate.

But Your Honor is right, with respect to Figure 9A, there are other components as well.

We're, in a way, pointing to them through the language here, but the most important aspect is that you need to have a concave mirror because that performs a converging function, focuses the light, and you have to have the aberration corrector plate because there's aberrations that are occurring that need to be fixed.

There are other passages as well.

**THE COURT:** Just hold on a second, please.



All right. So Figure 11 has 601, 602, 603, and 604. Is there a figure that has all of those components plus 605 in the patent?

**MR. CHEN:** Figure 11.

**THE COURT:** That's what I just identified.

**MR. CHEN:** Yes.

**THE COURT:** So it's missing 605.

**MR. CHEN:** That is correct. That is correct. 605 is just the image.

**THE COURT:** So how is that a structure?

**MR. CHEN:** Yeah, that's just the image plane so you do not need that.

**THE COURT:** So, for instance, if you were talking to a jury, we could say Figure 11 would be a corresponding structure.

**MR. CHEN:** Figure 11, I believe, is a corresponding structure, yes.

There are various embodiments and that's why there's just a slight pause, Your Honor. I just want to --

**THE COURT:** No, see, what I'm used to...

This is limited, but what I'm used to with means-plus-function is the corresponding structure. I literally point to the patent. I tell the jury the corresponding structure is here, and it actually looks



like I could do that here.

**MR. CHEN:** Yes.

**THE COURT:** I could say the corresponding structure is Figure 11.

**MR. CHEN:** Yes.

**THE COURT:** Could you live with that instead of all the different language you put in your table?

**MR. CHEN:** I could. I could.

**THE COURT:** How about the plaintiffs?

**MR. KHAN:** Your Honor, Figure 11 includes elements that are not associated with the claim function, so it includes things that, like, part of the flow cell. The flow cell is not the structure that's gathering the light, right? And so I think --

**THE COURT:** But wait. What do you do with the passage that Mr. Chen just pointed me to? Is it Column 44, right?

**MR. KHAN:** Thirty-four, Your Honor.

**THE COURT:** Thirty-four?

**MR. KHAN:** Yes.

**THE COURT:** I mean, that appears to...

Well, actually, let me ask you this. Are you saying that whatever it is that's depicted in Figure 11 does not collect and focus fluorescent light emitted by a particle illuminated by the light source such that the

fluorescent light leaving the collecting optical element converges?

**MR. KHAN:** We are not disputing that certain elements in that figure do that. If I could level up and just frame the dispute.

The first dispute, in light of Your Honor's suggestion with respect to focusing optical element, is whether collecting optical element is sufficient structure. And we're prepared to speak to that. But if what we're talking about is, assuming collecting optical element is not sufficient structure, what's the corresponding structure?

The framing that I would offer you, Judge, is they are pointing to very specific embodiments and saying, hey, it's got to be sort of these two elements, pluck it out of Figure 11, these two elements from Figure 9, these two elements from over here.

The specification actually levels up and says there's a composite microscope objective. The composite microscope objective gathers, collects images, light, and puts it onto the fiber. That's in Figure 1.

And so we would say, Your Honor, the composite microscope objective is sufficient structure to perform the function. And they disagree with us. I see Mr. Chen shaking his head.



**THE COURT:** Yeah. You guys are all head shakers.

**MR. KHAN:** So I'm just saying, there's a disagreement, and that's -- I think I am accurately characterizing the disagreement, which is we would say the corresponding structure can be articulated at a level of generality.

And the Federal Circuit instructs that where the specification uses optional language, and we can show you where that is in the specification, you know, may include X, Y, Z, or does not include.

In fact, in this specification, Your Honor, we can show you, there's passages that talk about an aberration corrector plate, which is what Mr. Chen was pointing to may, not be required. There's passages in the specification that say concave mirror may be included. That means may not be included. There's language in the specifications five times.

**THE COURT:** Yeah. Well, again, what happens when I don't read your brief, right?

**MR. KHAN:** Yeah.

And we understand that, Your Honor, and we're prepared to walk through the specifications on that issue.

**MR. CHEN:** The Federal Circuit also makes it



really clear that the structure needs to be clearly linked with performing the claim function.

The only structures that are clearly linked with performing the claim functions always include a concave mirror, aberration corrector plate. Could not be more clear in the specification.

And objective, by itself, is insufficient structure for performing the function. Does not converge light. Doesn't have to converge light.

**THE COURT:** The only reason I'm even hearing this argument is because, Mr. Chen, you said you really want a ruling on these last three terms.

**MR. CHEN:** We do want a ruling on this one.

**THE COURT:** I know. But, I mean, I'm just, you know, I'm steamed. I mean, you know, I came out here, I told you, it really gets my...

I can't believe I had to encounter that in the briefing. The only reason we even had the hearing is because you didn't do. You know, you played by the rules.

But the truth of the matter is, I'm not fully up to speed on these last three terms because there's only so much you can do if you are me.

**MR. CHEN:** Understood.

**MR. KHAN:** Judge, would it help for us to



present the specification cites we're relying on? Because we have them, and we can walk through them.

**THE COURT:** Well, the problem is, if you present it, would it be helpful? Yeah. At 2:30? You know, but I had to prepare for this.

I have limited time. I have to get my reportables out by September 30. I won't because of stuff like this.

**MR. CHEN:** Could I take two minutes to confer with my colleagues, Your Honor?

**THE COURT:** Yeah.

**MR. CHEN:** Okay.

(Counsel confer.)

**THE COURT:** By the way, I mean, next time I get a brief from this side, if it has something like that, I'm striking it, and I am going to take measures, because this was not fair to the defendant, and it wasn't fair to the Court.

**MR. KHAN:** Understood, Your Honor. Thank you.

**MR. CHEN:** Sorry, Your Honor.

I was just trying to ask my colleague if we could forego the "collimating optical element," but unfortunately, it shows up in so many claims, I don't think we can avoid that. But perhaps you could take the "collecting optical element" under advisement?

**THE COURT:** Actually, how about we do this? Is there a way to structure the case now? We've had a couple of issues about indefiniteness and the written description.

**MR. CHEN:** Yes. Yes.

**THE COURT:** Then maybe what we do is, is there a way you can bring motions related to that, or tee those issues up without me needing to address these remaining three terms?

**MR. CHEN:** Can you give me a minute, Your Honor?

(Counsel confer.)

**MR. KHAN:** If I could also be heard on that issue? Eventually, not right now.

**MR. CHEN:** A few things, Your Honor. So there's a lot of claims still that are being asserted. The parties had initially agreed that they would narrow asserted claims in prior art after *Markman*.

Perhaps, we could have an agreement that they can narrow before there's a ruling on all the terms. That might help, then, us be able to file a summary judgment motion that would hopefully --

**THE COURT:** I like that. I like that idea.

Mr. Khan?

**MR. KHAN:** Your Honor, as to early motion



practice, I think the terms that we have been talking about today and the issues that they've purported to raise with respect to indefiniteness and written description, those are not case dispositive. In other words, they are directed to a handful of claims in certain patents.

**THE COURT:** Okay. That may be, but let's do this, let's do it in stages. I think... and there was an issue before. You said it was on mooted, the narrowing thing, right? The last time I was here, didn't you all say that that motion you brought --

**MR. CHEN:** That's correct, yes.

**THE COURT:** -- right, had been mooted? But that's maybe what we ought to do. We ought to force the plaintiff to narrow its asserted claims, and maybe some of these will go away. That seems, to me, a good way to resolve.

And at that point, after you've narrowed it, we could have a status conference and I could hear, is a proposal. I'm not saying I'd agree to it. I'm not saying I'd agree to it, but I might.

And I will say this, Mr. Khan's made a very good point. When I did it in the *Hip Hormel* case, it's because it got rid of the case in its entirety. And I'm not saying... it would have gotten rid.



I mean, in other words, what I'm not going to do is, I'm not doing partial summary judgment motions. That doesn't... that does not help. That's, generally, a waste of Court assets, which are so limited.

**MR. CHEN:** Understood.

**THE COURT:** And I'm also, to be very clear, because I think somebody could misinterpret what I said of it would get rid of the case in its entirety. I've rejected indefiniteness arguments as many, or more than I've ever granted a motion.

**MR. CHEN:** Right.

**THE COURT:** So don't... I have not formed any judgment. I have no idea about the merits of an indefiniteness claim. But it just seems to me that it can be a useful exercise to move a case efficiently.

All right. So I do think what we ought to do is, I don't think it's productive right now to go forward with these three claims, especially if some of them went out the door because they weren't even going to be asserted going forward.

So where are we, right now, how many claims have been asserted? Rather, how many are currently being asserted?

**MR. KHAN:** We're at 40 claims, Your Honor. It was 42, but we withdrew two claims as part of the



briefing.

Sorry, 42. We are now at 42.

**THE COURT:** Forty-two over three patents?

**MR. KHAN:** Four patents.

**THE COURT:** Four patents.

**MR. CHEN:** Forty-two over four patents, and effectively 57 claims, because there's these multiple dependent, sort of, scenarios.

**MR. KHAN:** And, Your Honor, we've agreed to go down to 22 within a couple of weeks of the *Markman* order. So we are already -- we've already agreed to go down to half of that, essentially, you know, within short order of a *Markman* ruling.

**THE COURT:** Okay.

What's your... you have a proposal?

**MR. CHEN:** What we would propose, I think, is consistent with what Your Honor is saying, is to require them to narrow claims down to...

(Counsel confer.)

**MR. KHAN:** There was a ruling --

**MR. CHEN:** That's true. That's true. If it's case dispositive, we would ask for more of a narrowing than 22, Your Honor.

If we could get them to agree to ten claims, I think that would be much more manageable.

**THE COURT:** Well, definitely would be more manageable.

**MR. CHEN:** They're going to have to do that for trial anyways.

**THE COURT:** Well, right. I tend not to force it because the really good trial lawyers know, you can't try a case with even ten claims.

**MR. CHEN:** Right.

**THE COURT:** Good lawyers, the best I see, don't do stuff like that.

**MR. CHEN:** Right.

**MR. KHAN:** Your Honor, we argued this issue before Judge Tennyson, and she ruled. And we agreed to 22 claims within a couple of weeks of a *Markman* ruling.

We think that's appropriate in light of, we've got four patents in the case, fact discovery is about to close, and then we were expecting to get some expert discovery. And we're open to narrowing, of course. We know we can't try, you know, that many claims.

But I think it makes sense to let us complete fact discovery. And on fact discovery, Your Honor, it is going to be needed for any indefiniteness issue. And let me give you an example.

So at the hearing -- you know, you heard at



the last hearing about how "collimation" and "collimated." They were suggesting to you it's indefinite because no one knows what "collimated" means, right?

And, you know, one of the things that they didn't tell you, and we didn't tell you at the time, is the evidence is going to show that their own collimation lens in their product, it is -- the way they collimate it is just by holding it up and shining a light source, and then moving the collimating lens until they see the right spot size on the wall.

That's -- so they're not -- there's no measurement. There's no quantitation. There's no nothing.

So fact discovery is going to be incredibly important to a lot of -- both claim development, but also, a lot of indefiniteness issues that they're trying to raise here about, "What is collimation mean to a person of ordinary skill in the art?" I think we need to hear all of those issues.

**THE COURT:** Sorry. I'm trying to think why that's relevant right now for me to care.

**MR. KHAN:** It's relevant because, Your Honor, in terms of claim narrowing and in terms of when to have an early SJ practice, right, we need fact discovery to



complete.

We're almost done with fact discovery, about a month, six weeks out, according to new agreement we have. And we're moving right into expert discovery anyway.

And so from our perspective, you know, we're at the point -- we're not too far away from the point of them being able to make summary judgment motions anyway. And so it kind of makes sense to just hold this until then.

**THE COURT:** Yeah. I'm not making a ruling on summary judgment, and I expressed that. I said it might not be a smart idea at all.

Here's what I'm inclined to do. I'm inclined to say... she gave you two weeks from the *Markman* hearing?

**MR. KHAN:** I believe that's right, two weeks. Yes, Your Honor.

**THE COURT:** And, of course, I already had the *Markman* hearing.

**MR. KHAN:** I'm sorry? The ruling. Sorry. The ruling.

**THE COURT:** Okay. So I've given you rulings on all but the three terms that I will defend as not being prepared today because of the failure of you to



cite to the record, and so I stopped reading your brief. I think that's the only thing a judge in my position could do.

We're on our second *Markman* hearing. We've incurred an awful lot of judicial time to date, and we need to move the case. And so when I figure out all those factors, I think, at this point, I'm going to require the plaintiffs to narrow the claims to 16 claims.

Within two weeks good enough?

**MR. CHEN:** Yes.

**MR. KHAN:** We can do two weeks, Your Honor.

**THE COURT:** Sixteen claims.

And you ought to think about, when you're trying to figure out what claims, I mean, I don't know if it can be avoided, but to the extent you can avoid my having to construe those outstanding three terms, that would be a smart idea.

**MR. KHAN:** I believe there are only two outstanding terms. I may be mistaken. It's just "collimating optical element" and "collecting optical element," because focusing optical element, I think --

**THE COURT:** I've ruled on.

**MR. KHAN:** Yes, you're right.

**THE COURT:** Right. Is that true, there's only

two?

**MR. KHAN:** There's only two.

**MR. CHEN:** I believe that's correct, Your Honor.

**THE COURT:** Well, then, ideally neither of those two terms would be in the 16 asserted claims. Because then they are not prejudiced.

**MR. CHEN:** Thank you.

**THE COURT:** Right? Now, I'm not saying you have to do it, you know, but that would make sense.

Now, once you narrow in two weeks, if they, they being the defendant -- a singular, "it" -- wants to propose a way to tee up certain issues that it thinks might be efficient, I'm willing to entertain that.

By the way, I take it, if the plaintiff has some efficient way of resolving the case too, I'm willing to listen to that. I raise that initially not because of...

Well, not because of any reason other than I haven't found it to be successful when you have inadequate written descriptions and indefiniteness. And to be candid, as I've alluded to earlier is, there's some issues that, you know, my antenna says aren't right with some of this patent issue, like a collimated afocal image.



Now, maybe. I'm open-minded. I say things all the time, I have initial reactions, I articulate it, and then I change my mind. I have actually granted motions or reconsidered rulings I've issued in writing. But I'm just saying, my antenna is up. It just doesn't make a lot of sense.

And that's also why I, earlier on, suggested there may be early briefing we could address on written description, enablement, or indefiniteness. But it may be a stupid idea.

All right. But here's what I'm going to do. We're going to finish for the day. I've construed all but those two terms, and we're going to just hold them in abeyance. Well, actually, we'll just hold their construction in abeyance. They may go away.

I'm going to require the plaintiff, within two weeks of today, to identify the 16 claims that will be the universe from which it will select claims to try at trial.

And then, if you all meet and confer and decide it's worthwhile to have a status conference to discuss ways to move the case, I'm willing to do that. I won't have the status conference, by the way, it won't be until, like, November at the earliest. I am pretty flooded.



Does that make sense?

**MR. KHAN:** It does, Your Honor.

And just to be clear, once we narrow, they would also be required to narrow their prior art per Judge Tennyson's order in the schedule.

**THE COURT:** Yeah, I don't know what her order is.

But, Mr. Chen, do you understand that there's going to be corresponding narrowing of the defense after the narrowing of --

**MR. CHEN:** Understood, Your Honor.

**THE COURT:** Okay. Sounds good.

Okay. All right. Thank you all very much then. Have a good day.

(The proceedings concluded at 2:53 p.m.)

CERTIFICATE OF COURT REPORTER

I hereby certify that the foregoing is a true and accurate transcript from my stenographic notes in the proceeding.

/s/ Bonnie R. Archer
Bonnie R. Archer, RPR, FCRR
Official Court Reporter
U.S. District Court